The Psycho-Analysis of Artistic Vision and Hearing

AN INTRODUCTION TO A THEORY OF UNCONSCIOUS PERCEPTION

BY

Anton Ehrenzweig

This work introduces the reader to a new psychology of perception based on psychoanalysis of artistic appreciation. It is a familiar fact that new art matures into a mellow historical style in the course of a few generations, and that music which at first seems to have no harmonic sound yields later the qualities it had apparently lacked. The author suggests that this gradual transformation is not due to a belated understanding on the part of the public, but to certain dynamic changes in its perception which project more and more articulate order into the original half-articulate structure created by the artist. Only if we discount this distorting projection can we appreciate the wealth of unconscious inarticulate form material hidden in artistic and everyday perception. The book examines the inarticulate form experiences underlying such different phenomena as the growth of artistic and everyday 'language', the formation of a joke and symbol formation generally, aesthetic and plastic experiences, tone, colour, hearing, etc., all of which possess a hitherto neglected inarticulate substratum. It is also suggested that we generally tend to overestimate the proportion of articulate form experiences contained in our vision of everyday reality.

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> 'It is, in short, the reinstatement of the vague to
> its proper place in mental life which I am
> so anxious to press on the attention.'
> WILLIAM JAMES

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To my Mother

Preface and Introduction

When I first tried putting into words my findings about the unconscious structure of works of art, I felt uncertain as to what kind of public I should address myself—to those interested in the arts or to theoretical psychologists. The subject-matter appeared to require some knowledge both of theoretical psychology and of finer points of artistic appreciation. I am still not sure whether the interest of this volume lies in the new depth-psychological approach to art form or in the expansions and modifications of the psychological theory which this new approach has entailed. The uncertainty as to the kind of reading public which the book might attract forced me to keep my expression free from unnecessary psychological and art-criticism jargon; so that my difficulty may ultimately turn out to be an advantage. For the rest I may hope that the psychologist, interested chiefly in the Depth Psychology of Perception offered here, will, without misgiving, accept descriptions of specific artistic experiences even when they concern such controversial subjects as 'modern' art, and that the art lover and art critic will not be irritated by recurrent digressions into psychological theory upon which the continuity of my aesthetic argument does not really depend.

The book deals with the inarticulate form elements hidden in the unconscious structure of a work of art or—what comes to the same thing—with the unconscious structure of the perception processes by which we actively create or passively enjoy these unconscious form elements. In order to become aware of inarticulate forms we have to adopt a mental attitude not dissimilar to that which the psycho-analyst must adopt when dealing with unconscious material, namely some kind of diffuse attention. The inarticulate form elements tend to evade us because (as will be shown) they do not conform with the two great principles ruling our conscious 'surface' perception. Such evasive inarticulate form elements are, for instance, the many inarticulate inflexions of a melody (like glissandos, vibratos and other scale-free tone steps) or the seemingly erratic scribbles of the painter's 'handwriting'. Although we may fail to notice consciously these many frills and seeming 'accidents', they possess great significance for our unconscious depth mind, hence are duly noted by our unconscious 'depth' perception. The terms 'surface' and 'depth' perception, 'surface' and 'depth' mind are formed in accordance to the accepted terms 'Surface' and 'Depth' Psychology. (*Depth* perception is to be held apart from *space* perception, i.e. the perception of plastic 'depth' within space, with which I am dealing in Chapter XV.)

It will be submitted that two principles rule our surface perception and the book is accordingly divided into two parts. The first part deals with the abstract gestalt principle which guides our surface perception towards 'good' gestalt, i.e. towards precise, compact, coherent, aesthetically 'good' shapes. (See the short exposition of the gestalt principle at the beginning of the second chapter.) The gestalt-bound surface perception automatically relegates any other shapes—such as the glissandos, vibratos or the scribbles of artistic handwriting—to the 'gestalt-free' depth perception. This part deals with the problem of beauty.

The second part of the book deals with the other competing principle of surface perception which guides surface perception towards the biologically relevant thing shapes. One would have thought that the biological function of perception serving the recognition of real things should have overridden any other tendency in surface perception (such as the first-mentioned tendency towards perceiving a merely aesthetic gestalt), and an attempt will be made to account for this strange dualism of competing principles in our perception. Here we are dealing with problems of reality and truth.

Our thing perception tends to perceive the 'constant' properties of the things, their 'real' form, size, tone, and colour, and tries to eliminate (repress) their accidental distortions by perspectivic foreshortenings or hazards of illumination. It will be submitted that the repressed form, tone, and colour distortions are duly noted by an unconscious 'thing-free' depth perception which disregards the biological function of perception. Another example of a thing-free depth perception is our unconscious hearing of the overtones which are consciously inaudible; they are 'repressed' by the biologically more important hearing of tone colours.

In artistic perception and in the artistic creation of form the two (gestalt- or thing-free) kinds of inarticulate form elements become greatly reinforced because—as I will maintain—they may serve there as the main receptacle of art's unconscious symbolism. This reinforcement of inarticulate depth perception at the expense of surface perception calls forth a twofold articulation process by which surface perception regains its full energy charge. It infuses the thing-free form elements with a new thing meaning (*secondary reification*) and projects an articulate gestalt into the gestalt-free elements of art form (*secondary gestalt elaboration*). In spite of the identical dynamic function which these two articulation processes serve the method of representation adopted in this book forces me to treat them separately; the secondary gestalt elaboration in the book's first part, the secondary reification in its second part. I shall choose as the chief example of a secondary gestalt elaboration the slow articulation process which in the history of Western music articulated scale-free, rhythmically free, and harmony-free tone events into the prevailing systems of scale, rhythm, and harmony. As an example of a secondary reification I shall use the development of a scientific realism in Western painting which 'discovered' the biologically useless, repressed distortions of real form, tone, and colour (caused by perspective, Chiaroscuro, and open-air illumination) and made us accept these thing-free appearances of things as a scientific, truly 'realistic' method of depicting the real things.

The twofold articulation process of secondary gestalt elaboration and reification is *upward* directed; by lifting previously inarticulate form elements into surface perception it enriches surface perception at the expense of unconscious depth perception. This upward displacement of mental energy from the depth to the surface of the mind requires a certain effort in which aesthetic feelings serve a definite dynamic function. We shall see that a newly articulated shape impresses us as particularly 'ornamental' or 'beautiful'. I shall try to formulate a dynamic theory of the aesthetic feeling according to which aesthetic feelings are the conscious signals of intense articulation processes upholding a successful articulation against the disintegrating pull of inarticulate depth perception.

Mentioning the pull of depth perception which constantly threatens articulate surface perception brings us up against the second dynamic process active within our unconscious perception, namely the process of repression which pulls perception down to, or keeps it on the level of, inarticulate (gestalt- or thing-free) depth perception. This process is *downward* directed and dynamically poised against the upward-directed articulation process, establishing a dynamic equilibrium which is so characteristic of the psycho-analytical concept of mental processes. Repression processes serve for instance to exclude the thing-free perceptions of the overtones, of perspective, Chiaroscuro distortions, etc. from conscious thing perception and are therefore of great biological significance. In music and human speech we find numberless inarticulate sounds which become 'repressed' under the articulate musical or spoken sounds. Just as the successful upward-directed articulation is graced by a specific feeling (its aesthetic quality) so the successful repression generates a specific feeling of its own, namely a plastic quality. In a discussion of 'plastic mannerisms' I shall show that any increase of inarticulate form elements imparts a stronger plastic quality to our conscious perception which would thus serve as a signal for the hidden existence of repressed inarticulate perceptions. Hence comes, for instance, the plastic quality of a 'broad' dialect rich in inarticulate speech sounds, or of a primitive melody shot through with inarticulate glissandos and vibratos. We will arrive at a dynamic theory of the plastic quality in perception forming an exact counterpart to the mentioned theory of its aesthetic quality; one refers to strong repressions, the other to strong articulations, both called up by displacements of mental energy between different layers of perception.

It was the lack of a sharp break between the aesthetic and plastic 'illusions' of dream and of art on the one hand, and the phenomena of everyday perception on the other, which gave this book its double subject; the psycho-analysis of artistic perception had to be expanded into a Theory of Unconscious Perception in general. A synthesis between psycho-analysis and the many surface psychologies of perception (Gestalt Theory, Nineteenth-century Introspectionism, the Eidetic Theory, etc.) became possible and indeed necessary. It was gratifying to see that the unofficial science of psycho-analysis could serve as a pivot for synthesizing isolated schools of academic psychology. That the analysis of artistic perception should thus acquire wider theoretical significance for a general theory of perception ought not to surprise us. The analysis of the dream (which in so many ways resembles the artists' 'dream-like' phantasies) became for Freud of equally great theoretical significance in his exploring the unconscious; he called his analysis of the dream the *Royal Road* to the unconscious mind. Are we to wonder, then, that an investigation of the form problem in artistic perception should should give us new insights into the unconscious processes of perception and into ego functions in general?

Yet the main subject of this book remains an aesthetic investigation of art forms and of the perceptions focused upon them. Only in so far as it proved to be necessary for a complete understanding of the main aesthetic problem was it intended to examine general problems of unconscious perception. These attempts at psychological theory cannot claim to be more than an introduction to a new and practically unexplored field of psychology (as is indicated in the sub-title of the book). Our preliminary survey brings us into contact with very varying subjects; in great strides it touches upon the surface layers of perception and reaches down to the dim border region between the physiology and the depth psychology of perception. For the purposes of such a broad survey it would have been spurious to have burdened the reader with a comprehensive bibliography on these many border subjects; moreover the existing literature hardly ever takes into account the possibility of unconscious perception processes which after all are our main concern. The diversity of the subject-matters into which the phenomena of unconscious perception group themselves made it necessary at times to consider the same fact under different headings; it would have taxed the reader's power of recollection unduly had I expected him to keep in his mind the many details as they emerged in different contexts; instead, I preferred summing up any previous argument in a few words whenever it had to be reviewed from a new angle. This method of representation might at times appear to be repetitive, but avoided an inordinate number of cross-references. The unfamiliarity of much of the subject-matter made it advisable to prepare a very detailed table of contents and I could thus dispense with an equally detailed index. The index refers mostly to subjects which are treated under different headings.

My frequent use of 'modern' art (i.e. Western art in the first half of this century) as illustration for my argument is not explained by a particular predilection for this type of art; much 'modern' art has by now—in the second half of the century—assumed the mustiness of an already 'old-fashioned' art (see about this in Chapter IV) and has lost some of its former acerbity. Modern art proved useful for an investigation of unconscious form processes because—for a yet not fully explained reason—it more clearly revealed the working of the artist's unconscious mind than the more inhibited art of the preceding realistic tradition. Modern art has cut away the ground from under traditional Aesthetics (which had been mainly concerned with the artist's quest for beauty) by being purposely unbeautiful; this helped me to conceive one of the main theses of this book, namely the thesis that the need for beauty (the tendency towards an aesthetically 'good' gestalt) belonged only to the surface layers of the mind, but was foreign to the 'gestalt-free' depth mind. The break-through of the depth mind in modern art has done away with the aesthetic surface of art and revealed the unbeautiful gestalt-free vision of the unconscious. Thus modern art—together with some examples of primitive art—can serve as the most direct evidence for the irrational and unaesthetic modes in which our unconscious depth mind creates and perceives form.

The pronounced irrational quality of modern and of some primitive art will need further investigation as a symptom of our present state of civilization; but such an investigation leads beyond the aesthetic theme of this book into an analysis of the cultural process as a whole. In the *Postscript* I will give a more precise depth-psychological definition of what is to be understood if we call a particular state of civilization 'irrational'; we then can observe an increase in the activity of the depth mind and also a growing libidinous detachment from external reality. I may then justify my tentative diagnosis of modern civilization as being irrational or primitive. In my opinion, art as well as religion, by being less dependent on external factors than other branches of culture, would reveal particularly clearly the changes in the depth-psychological climate of a certain civilization. Thus the depth-psychological analysis of art form—apart from its wider significance for our knowledge of unconscious perception—may be able to make a significant contribution to the writing of cultural history.

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In my venture I am deeply indebted to two men; to Sir Herbert Read, without whose writings I would have never thought of applying depth-psychological methods to the analysis of art and of modern art in particular, and who generously encouraged my first attemps at formulation as well as my more mature efforts; and to the late Dr John Rickman who, as the editor of the *British Journal of Medical Psychology* and joint editor of the *International Journal of Psycho-analysis*, opened the pages of these publications to my papers on applied psycho-analysis, and spurred me on to writing this book. I was fortunate in securing the collaboration of Miss Mollie Crichton-Gordon for the final editing of the manuscript. Miss Crichton-Gordon had already assisted Dr Rickman in editing my previous papers on the same subject and was particularly well qualified for this difficult as well as exacting task. I would also like to thank Prof. E. H. Gombrich for his repeated advice and Dr B. Lantos for reading and commenting on my papers forming part of this book. I am greatly indebted to Mrs Riehm-Marcus for her ready help in the preparation of the diagrams, and to Mr C. A. Burland, of the British Museum, for his assistance in procuring illustrative material. I have to thank some of my colleagues at the Central School of Arts and Crafts for their active interest in my work, particularly the Curator, Mr Richard Murry, who also read the proofs. I have benefited generally more from looking at or listening to individual works of art and from talking to people rather than from reading art-theoretical books; hence I must express my sincere gratitude to my friends and to my wife who by their steady sympathy and patience helped me to nurse my thoughts from an initial 'inarticulate' stage to that of their final formulation.

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FIRST PART

The Depth Psychology of (Abstract) Gestalt Perception

I

The 'Psychologist's Fallacy' in the Observation of Inarticulate Perceptions

WILLIAM JAMES, Sigmund Freud, and recently the Gestalt Theory, independently of each other, drew attention to the articulating tendency active within our (surface) perception. We tend for the most part to notice simple, compact, precise forms, at the same time eliminating vague, incoherent, inarticulate forms from our perception.

The Gestalt Theory has made a thorough study of these tendencies. It calls the articulating tendency the gestalt tendency; the articulate form (gestalt) which we tend to perceive, possesses form properties of simplicity, compactness, coherence, etc. which add up into an aesthetically 'good' gestalt.[1] The Gestalt Theory, while studying the selected gestalt in great detail, pays little attention to the fate of those inarticulate form elements which are excluded from the gestalt. A depth psychology of perception has to make good this neglect. Freud, who also noticed the articulating tendency of our observing mind, found that form experiences coming from lower layers of the mind, like our dream visions, tended to be inarticulate; they appeared to our observing surface mind as altogether chaotic and were difficult to grasp.

Even before Freud, William James recognized the extent of this difficulty; he saw in the observing mind's tendency to perceive only articulate form a serious epistemological limitation that barred direct insight into our inarticulate form experiences. We shall see that inarticulate form experiences either appear to be altogether empty, like 'gaps' or interruptions in the stream of consciousness, or else that they acquire, in retrospection, a too definite, too articulate structure. Unless we are on our guard we can easily mistake this distorted view of inarticulate forms for their original structure, thus committing what William James calls the 'Psychologist's Fallacy *par excellence*'.

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[1] For a more detailed description of the gestalt tendencies see the beginning of Chapter II.

It seems strange that in spite of William James's emphatic warning and the undiminished prestige he enjoys as the greatest American psychologist of the last century, later psychologists should have ignored his warning whenever they came across the surface mind's articulating tendency. The Gestalt Theory, by observing everywhere articulate gestalt (or gestalt in its nascence) and failing to give equal attention to inarticulate form experiences, committed the 'Psychologist's Fallacy' almost as a matter of principle, yet went uncensored by followers of William James. Modern depth psychology may be able to explain this blind spot. Freud has shown that inarticulate form experiences are the messengers from the unconscious mind; our unwillingness to give them due attention may be connected with our general reluctance ('resistance') to acknowledge the rôle which the unconscious mind plays in our mental life. Throughout our coming investigation of inarticulate perceptions, we shall have to battle against the influence of the 'Psychologist's Fallacy'.

Psycho-analysis, though not fully aware of the philosophical implication of the observing surface mind's articulating gestalt tendency, habitually adopts a certain attitude in dealing with unconscious material which, to a very great extent, neutralizes its harmful influence. Psycho-analysis teaches us that in examining the form products of the unconscious mind—dreams and art would be such products—we have no right to neglect what seems, at first sight, to be an accidental and unrelated detail. Knowing this, the psycho-analyst is apt to reverse the commonsense attitude which pays attention to the obviously significant and coherent in the dream or in art, and will watch out for the seemingly fortuitous, unrelated and accidental detail; more likely than not it will conceal the most significant unconscious *content*.

Psycho-analysis has not so far applied this method to the *structural* analysis of art. But in aesthetic form analysis the reversal of our commonsense attitude is particularly useful. Art usually impresses us by its stringent order and closely knit interconnexion between forms which seem to leave nothing to chance. For this reason, as we shall see, the gestalt psychologists take art as the supreme manifestation of the human mind's striving towards articulate gestalt. The depth psychologist, however, may be put on his guard by this all too obvious order. Could it not be that it served to deflect our conscious attention from such inarticulate form elements as those which contained the unconsciously significant symbolism? We know art to be as symbolic as the dream. But unlike the dream, which is formed while our surface functions are paralysed during sleep, art is created and enjoyed during the waking state. It is possible, therefore, that during artistic perception the surface mind (which is subject to the gestalt tendency) would function all the more vigorously in order to cover up the inarticulate symbolic forms by a 'good' gestalt.

From a depth-psychological viewpoint, current art psychologies pay too much attention to the obvious surface order of art and to its aesthetic appeal, and are thus prevented from appreciating the many inarticulate form phenomena falling outside art's aesthetic superstructure. A truly depth-psychological analysis of art form must, by a determined effort, reverse the usual approach and look out for the seemingly accidental and insignificant detail in which the unconscious creative process of art can unfold itself safe from conscious observation. Such an analysis will turn away from the consciously 'composed' structure of painting and watch for the apparently accidental scribbles hidden in the inarticulate forms of artistic 'handwriting'. It will pay less attention to the articulate tone steps of a melody moving in a measurable rhythm (as they are recorded by musical notation) than to the apparently accidental glissando and vibrato inflexions, or to the slight distortions of rhythm and intensity which defy musical notation and are left to the seemingly 'arbitrary' execution by the performer. There are many such inarticulate form elements which at first sight would appear inaccessible to conscious analysis.

In the realm of harmonic music, at least, Arnold Schönberg, with his usual depth-psychological intuition, has corrected the current approach of harmonic theory which considers only the articulate consciously heard chords. Just as in a melody the inarticulate glissando- and vibrato-like inflexions are sandwiched between the articulate tone steps (we shall call them 'transitive' for this reason), so are there 'transitive' chords sandwiched between the articulate consonances and dissonances of the classical harmonic system. These seem to be fully explained by the necessity of a natural melodic transition from one articulate chord to

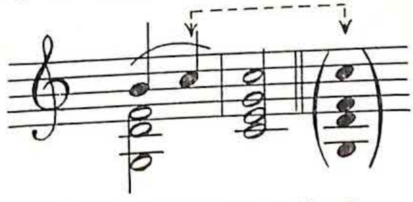

FIG. 1. 'Transitive' chord.

the next. The polyphonic voices do not fall into a new articulate chord with every melodic step; hence they form 'accidental' chord combinations while they move on in the melodic transition in between. These fleeting chords do not catch our conscious attention and the traditional theory of harmony treats them as accidental 'harmony-free' products of the natural melodic movement between the articulate chords. Schönberg, almost disdainfully, brushes aside a theory which dares to discard parts of the polyphonic structure as insignificant or 'accidental'. According to his view even the most fleeting chord combination is just as essential to the harmonic structure as are the more obvious striking form elements. He comes very near to a psycho-analytical approach by reversing the commonsense attitude; the creative process of forming new harmonic chords would take place just in those transitive and seemingly 'accidental' chords where new experiments in harmonic hearing can be carried out, safe from conscious detection. (We shall see that Schönberg's intuitive theory is in accord with the general law of artistic articulation; new elements of the articulate form language of art would always be created unconsciously, hidden away in seemingly inarticulate insignificant details, and it is from there that conscious perception gradually draws them to the surface.)

Modern artists generally possess greater sensibility for the importance of inarticulate form; we shall explain this by the greater significance of the unconscious mind in modern art. Hence Sir Herbert Read, a pioneer of modern art in other fields, has developed artistic theories which come nearest to the views put forward here. He stresses the significance of metrical irregularities in modern poetry, and characteristically refers to Gerard Manley Hopkins's views on the same subject (which are of course older than modern art) in order to demonstrate the validity of his theories for any kind of poetry, ancient or modern.[1]

But it is not only the modern artist who knows of inarticulate form experiences; any act of creativeness in art or science knows such experiences whenever the creative consciousness reaches down into the deeper layers of the mind. (See about the smooth transition between traditional and modern art in Chapters II and XII.) It will become possible to demonstrate that any inarticulate form experiences, whether in the dream, day-dream, joke, creative vision, etc., emanate from the lower layers of the mind; they are produced whenever these lower layers are stimulated into action. We have already mentioned that the visions of the dream appear inarticulate ('gestalt-free' as we shall call them) because the deeper layers of the mind are stimulated while the surface functions are partly paralysed. Varendonck[1] proved that similar inarticulate, dream-like form experiences occurred also in other states of mind where similar shifts of consciousness take place. The alternation between waking and sleeping may involve a stronger and more lasting displacement of mental energy between the surface mind and the depth mind. But the waking consciousness, too, knows of shallower and quicker alternations that bring about the same result—a temporary advance of inarticulate, dream-like perceptions.

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[1] Read, Herbert, 'Gerard Manley Hopkins', in *In Defence of Shelley and other Essays* (Heinemann, 1936).

A series of gradual transitions leads from the slow cycle of waking and sleeping to the 'double rhythm' of the creative activity and from there to the rapid oscillations of everyday thinking and everyday perception. (We shall be led to the conclusion that these rhythmical displacements may be inherent in mental functioning.) Varendonck proceeded from the analysis of the dream to that of the day-dream (which is still nearer to the dream proper), and from there to the analysis of the creative state, the rhythm of which comes nearer to the oscillations of the everyday consciousness.

We saw that the first link in the series of transitions was the day-dream. A day-dream is easily 'forgotten', or appears as a mere 'absence of mind' once we have reverted from our inert phantasies to the ordinary rational tension of everyday consciousness. Both the 'forgetting' and the impression of an 'absence of mind' are due to the inarticulate structure of the day-dream (see the following quotations from the writings of William James). To reconstruct a day-dreaming phantasy already past requires a particular gift for 'looking inwards' (i.e. introspectively) into one's own inarticulate form experiences. Varendonck usually remembered its last portion and found that the remainder of, the day-dream would emerge in a reverse time order.[2] In Chapter VI (dealing with the articulations within the order of time) it will be shown how the gestalt function of the surface mind resists such a reversal of the time-order. It is likely that Varendonck's method of recollection was part of his particular technique, which allowed him to reconstruct inarticulate experiences.

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[1] *Über das vorbewusste phantasierende Denken* (Internationaler Psychoanalytischer Verlag, 1922). Varendonck omitted his theoretical conclusions from this publication so that the psycho-analytical public knows only little about them.

[2] *Ibid.*, pp. 7, 9.

It seems to be a far cry from inert day-dreaming phantasies to the frequently turbulent visions of creative states. Varendonck's chief merit is that he recognized their identical inarticulate structure. The reason for this identity is, of course, that in the creative state (as in day-dreaming) the functions of the depth mind are stimulated. But while the inert day-dream is *static*, the creative state is *transitive* (to use the expression which I have borrowed from William James); its tension strives to give a more articulate shape to the inarticulate creative vision which then crystallizes into a definite formative idea (*Einfall*). If, however, as in automatic painting, any definite conscious idea is suppressed, the creative state approaches the undisturbed calm of day-dreaming.[1]

The creative state resembles the day-dream in the fact that it tends to be recollected later as a mere 'absence of mind' (gap, emptiness, interruption of consciousness). This again is due to the inarticulate structure common to them both which the surface mind cannot grasp. We cannot wonder, therefore, that psycho-analytical literature has tended to describe creative states as interruptions of consciousness.[2]

As in the observation of day-dreaming states, it needs a particular technique to resuscitate the memory of the inarticulate visions which filled the creative mind during the alleged lapse of consciousness; it may require a watchfulness comparable to the cool self-control which an actor has to exercise during the white heat of a near-hysterical outburst. Varendonck could sustain his watchfulness even in the twilight states between waking and sleeping, and so was capable of catching those fleeting visions which are otherwise irretrievably lost. (It is not impossible that a similar acuity in self-observation might be capable of penetrating through to the short 'absence of mind' before the invention of a new joke and discover there the same fluid medley of ambiguous images and ideas which we can extract—with difficulty—from the more protracted creative state of the artist.)

Varendonck pursued the series of transitions further towards the flickering moments of ambiguity which, as he assumes, are the initial stages of any perception (see Varendonck's analysis of the two stages in the perception in Chapter XI). It is to William James, however, that we owe our ability of discerning, in the stream of everyday consciousness, recurring '*transitive*' states of inarticulate form experiences which form the transitions between the well-defined '*substantive*' contents of consciousness. Any formulation of a thought or of a sentence is preceded by an inarticulate '*transitive*' anticipation.[1] William James asks his reader whether he has ever considered 'what kind of mental fact is his *intention of saying a thing* before he has said it. . . . It is an entirely definite intention, distinct from all other intentions, an absolutely distinct state of consciousness, therefore; and yet how much of it consists of definite sensorial images, either of words or of things? Hardly anything! Linger, and the words and things come into the mind; the anticipatory intention, the divination is there no more. But as the words arrive, it welcomes them successively and calls them right if they agree with it, it rejects them and calls them wrong if they do not. It has therefore a nature of its own of the most positive sort, and yet what can we say about it without using words that belong to the later mental facts that replace it? The intention *to-say-so-and-so* is the only name it can receive.' This is the other variety of the 'Psychologist's Fallacy'; one was to treat the anticipatory suspension of consciousness as a mere 'absence of mind', the other is to 'retro-relate' the later articulate formative idea back to the original inarticulate state. It is easier to observe this retro-relation in the double rhythm of creative thinking where the formative idea may emerge only after prolonged transitive tension. Once the thinker has captured and crystallized that elusive anticipation into a well-defined formulation, he will no longer realize how vague and inarticulate his first state of 'divination' really was. True, he may have laboured and doubted in his attempts to give it a definite shape, but as he has succeeded in his task he will wrongly maintain that the idea in its final form has been hovering in his mind all along, 'only that he could not quite grasp it' at the time. The same contention that a later articulate formulation has been present already in a primary inarticulate state 'only that we could not quite grasp it at that time', will be met also in other contexts.[2]

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[1] Varendonck, *The Evolution of the Conscious Faculties* (London, George Allen and Unwin, 1923).

[2] O. Rank (in *Der Künstler*, *Imago-Bücher*, I, 66) recognizes that artistic creativeness involves cyclical displacements of mental energy between different layers of the mind, yet considers the inarticulate perception preceding the emergence of the definite formative idea as a mere interruption of consciousness, empty of vision. Similarly, Freud compares the short 'creative' tension preceding the invention of a new joke with something like an 'absence of mind' (*Der Witz und seine Beziehung zum Unbewussten* (1912), p. 145).

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[1] James, William, *The Principles of Psychology* (London, Macmillan and Co., 1901), p. 253.

[2] See the retro-relation of the final definite formulation of a work of art to its initial ambiguous conception in the next chapter; and the retro-relation of the 'guessed' meaning and 'elegant' form of a joke back to its initial nonsensical and baffling appearance in Chapter VIII.

William James also has a word to say about the first variety of the 'Psychologist's Fallacy'—that which mistakes past inarticulate perceptions for an absence of mind or an interruption of consciousness. He deals with the search for a forgotten name which we vainly try to recall. Though the word to be recalled is not yet there, our consciousness is not merely empty. 'The state of our consciousness is peculiar. There is a gap therein; but no mere gap. It is a gap that is intensely active. A sort of wraith of the name is in it, beckoning us in a given direction, making us at moments tingle with the sense of our closeness, and then letting us sink back without the longed-for term. If wrong names are proposed to us, this singularly definite gap acts immediately so as to negate them. They do not fit into its mould. And the gap of one word does not feel like the gap of another, all empty of content as both might seem necessarily to be when described as gaps. . . . We can only designate the difference by borrowing the names of objects not yet in mind' (i.e. by *retro-relating* the later articulate perception back to the primary state of inarticulate suspension). 'Which is to say that our psychological vocabulary is wholly inadequate to name the differences that exist, even such strong differences as these. But namelessness is compatible with existence. There are innumerable consciousnesses of emptiness no one of which taken in itself has a name, but all different from each other. The ordinary way is to assume that they are emptinesses of consciousness, and so the same state.[1] But the feeling of an absence is *toto coelo* other than the absence of a feeling. . . . The rhythm of a lost word may be there without a sound to clothe it; or the evanescent sense of something which is the initial vowel or consonant may mock us fitfully, without growing more distinct. Everyone must know the tantalizing effect of the blank rhythm of some forgotten verse, restlessly dancing in one's mind, striving to be filled out with words.'[2]

The 'gap' which—to use William James's word—'beckons' us into a given direction is akin to the guiding vision of the creative artist or thinker which accepts or rejects the formative ideas. The search for a forgotten name (which may succeed only after prolonged suspension) would stand half-way between the transitive oscillations of the everyday consciousness and the double rhythm of the creative state where the shallow oscillation is often drawn out into long painful states of un-relieved tension. Thus we can apply William James's masterful analysis of the transitive tracts in the everyday thought stream directly to the analysis of creative perception, and I may be excused for quoting so extensively from William James's own words.

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[1] The analysis of the thought stream by the gestalt psychologist, Koffka, still refers to 'thought gestalten with gaps' and the like. See Petermann, Bruno, *The Gestalt Theory and the Problem of Configuration* (Kegan Paul, Trench, Trubner and Co., 1932), p. 270.

[2] *Ibid.*, pp. 251, 252.

The main insight which I owe to William James's philosophical acuity is the epistemological evaluation of the surface mind's incapability of grasping inarticulate perceptions. Its gestalt tendency will destroy their essence as inarticulate structures. 'Let anyone try to cut a thought across in the middle and get a look at its section, and he will see how difficult the introspective observation of the transitive tracts is. The rush of the thought is so headlong that it almost always brings us up to the conclusion before we can arrest it, or if our purpose is nimble enough and we do arrest it, it ceases forthwith to be itself. As a snowflake crystal caught in the warm hand is no longer a crystal but a drop, so, instead of catching the feeling of relation moving to its term, we find we have caught some substantive thing, usually the last word we were pronouncing, statically taken, and with its function, tendency, and particular meaning in the sentence quite evaporated' (p. 244).

Our observing surface mind has at its disposal only fully articulate static gestalt structures for its task of grasping the utterly mobile and fluid structures lifted from the deeper layers of the mind by the oscillations of consciousness. Hence comes the almost unavoidable 'Psychologist's Fallacy *par excellence*' which makes us perceive in their stead either a 'gap' or a too articulate secondary gestalt. This fallacy is the main reason why we fail to make out the inarticulate structure of art form. To cut across the stream of melody so as to catch the transitive glissandos and other inflexions connecting the articulate tone steps, or to cut across the stream of harmony in order to catch the transitive chords sandwiched between the articulate (substantive) chords, is just as difficult as cutting across the headlong rush of the thought stream.

It is to be deplored that William James did not live long enough to do more than greet the advent of modern depth psychology for which he had such an intuitive grasp (at least as far as the inarticulate structure of unconscious phenomena is concerned). Freud may have been too preoccupied with exploring the vast contents of the unconscious mind to give much care to dissecting the inarticulate structures hidden there. We already mentioned in the beginning that Freud, like William James, came across the articulating tendency of the observing surface mind and also appreciated its distorting tendency, but did not draw the same epistemological conclusions. Freud found that our waking mind tended to recollect a past inarticulate dream in a far too articulate structure (gestalt); moreover, the inarticulate details eliminated from this all too articulate dream memory happened to contain the most essential dream symbolism. But he found that, by overcoming the 'resistance' to recollecting these symbolic details, he could gradually bring back the forgotten content of the dream.

Freud was also aware of the epistemological problem involved in what he called 'translating' the unconscious contents into rationally intelligible terms. But he was probably too anxious to gather his information to be greatly concerned with whether the original's structure had been lost in this 'translation' or not. He even compared the task of psycho-analysis with Immanuel Kant's epistemological criticism of external perception, but went on to say that after all the perception of our internal world was easier than the perception of the external world; the overcoming of the 'resistances' ensured the correct interpretation of unconscious processes.[1]

It is true that Freud may have succeeded, for instance by breaking down resistances, in recalling, step by step, the forgotten dream elements. In this way he gathered up the full *content* of the dream; but could he have restored, in a single act of comprehension, the dream vision's original inarticulate *structure*? That structure must remain, once and for all, inaccessible to the observing surface mind if only because of its inarticulate (gestalt-free) structure, however well its specific details are 'translated'.

While the current neglect of the inarticulate structure of unconscious form processes mattered little in clinical work which tried to bring up the repressed infantile contents of the depth mind, it began to matter a great deal in an aesthetic analysis of structure which tried to penetrate to the manifestations of the unconscious mind in art form. It will be seen that our depth-psychological analysis of unconscious inarticulate art forms will be little more than a never-relaxing struggle against the 'Psychologist's Fallacy'.

It may be objected that Freud brilliantly succeeded in the structural analysis of the joke. This is indeed true—up to a certain point. Freud contemplated the joke's structure long after its laughter-raising effect had worn off; he dissected it by 'reducing' its meaning into rational language and so isolating the specific irrational way in which the joke expressed a meaning in its twisting of the stream of rational language or thought. But Freud did not consider that these dead no longer laughable jokes had lost their structural identity while he examined them. With obvious delight he expounds their relative merits as an elegant aesthetic formulation (one could say 'good' gestalt) of a poignant thought. It will be shown in Chapter VIII that this aesthetic and rational impression is incompatible with the original inarticulate structure of the joke as a nonsensical symbol; as such it breaks into the ordered stream of thought and 'baffles' our surface functions into laughter. Freud might have overlooked the fact that his aesthetic pleasure in the joke was only secondary to its original laughter-raising quality. The aesthetic enjoyment of a joke will be described as an 'after-pleasure' based on the destruction of laughter (rather than a 'fore-pleasure' as assumed by the current theory). It will be the main thesis of this book that the aesthetic pleasure generally adheres only to the gestalt elaborations which the surface mind projects into the inarticulate symbolic structures of the depth mind. The style and beauty of art is a superstructure serving to hide and to neutralize the dangerous symbolism hidden in the unaesthetic inarticulate structures below. The creative process occurs in those hidden layers. Hence to overlook the secondary, destroying character of the aesthetic pleasure experienced in a joke had the effect of cutting off the depth-psychological form analysis of art. The history of science in general has shown that it is possible up to a certain point to get along without philosophical finesse; but further advancement is only achieved by paying attention to what seems at first to be hair-splitting niceties. Freud succeeded in the form analysis of the joke where the secondary character of the aesthetic pleasure mattered little; but his slight inaccuracy in assessing the secondary function of the aesthetic pleasure effectively blocked the form analysis of art where the secondary function of the aesthetic pleasure becomes of paramount importance.

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[1] Freud, S., 'The Unconscious', *Collected Papers* (London, The Hogarth Press and the Institute of Psycho-Analysis, 1946), Vol. IV. See later, p. 254.

Up to a certain limit the artist's work remains a 'primary' process which merely supplies the inarticulate form material characteristic of the depth mind; it is left to the public to project a more articulate and at the same time more aesthetic structure into it. The artist cannot rigidly determine the future 'passive' enjoyment of his work by the public; he merely stimulates within limits secondary articulation processes by presenting the public's perception with inarticulate material in itself unsuitable for articulate surface perception; hence the public is at liberty to project a new articulate structure and rational meaning into the work of art, a projection which may change in the course of the centuries. Sir Herbert Read quotes Bradley as saying that the poet's task is not to clothe in imagery consciously held ideas; 'it is to produce half-consciously a matter from which, when produced, the reader may, if he chooses, extract ideas'.[1] I may be permitted to add that the public may project not only missing contents, but also missing articulate structures into the artistic form which, because it is half-consciously produced, shows the inarticulate structure typical of all unconsciously created form. Moreover, as we shall see, it is not left to the arbitrary choice of the public to project or not to project its secondary articulations of meaning and structure. The fact that our observing mind cannot but project a more articulate gestalt into unconsciously produced material alone ensures that the work of art must become transformed in the public's eyes. The work of art remains the *Ding an sich* about the real structure of which we cannot make any definite statements. All we can do is to examine the secondary dynamic processes which are set in motion by it; we are thus enabled to study the interaction between the layers of surface and depth perception not only in art, but in everyday perception.

We have perhaps to correct our first description of the creative process as a double rhythm oscillating between inarticulate depth perception and articulate surface perception. The primary inarticulate vision is not wholly translated into definite and articulate formative ideas (*Einfälle*). To a great extent, the creative process remains on an unconscious inarticulate level where unconscious perceptions communicate themselves directly to the artist's 'automatically' working hand. The cycle of the creative process is closed through the secondary projections of the public whose surface perception cannot but transmute the half-articulate form material of art into a more articulate gestalt (see Chapter IV for the supra-individual creative process, shared between the creative artist and his 'uncreative' public). Hence we shall describe it as the artist's primary task to disintegrate the articulate and rational surface perception and to call up secondary processes in the public which will restore the articulate structure and rational content of surface perception.

If we accept the assumption that the objective work of art cannot be correctly observed owing to the interference of the observing surface mind's articulating tendencies, then any statement ventured by the art historian may refer, not to the objective work, but merely to the articulation processes valid for a particular place and time. Again this reservation is more than philosophical finesse. If the history of art cannot make any definite statements about particular works of art, it can still describe the stages of the articulation processes underlying the gradual evolution of an artistic form language. This can be done in a very precise way in writing the history of music, as will be shown later in Chapters V and VII. We shall see how our musical hearing gradually changed by articulating more and more precisely the melodic, rhythmical and harmonic progression of musical sounds. (We shall omit from our consideration the articulation of the tone intensity between *piano* and *forte* because it does not show changes in articulation that can be observed easily.)

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[1] Read, Herbert, *Surrealism* (London, Faber and Faber, 1936), p. 50.

We shall see that the progress of artistic articulation tends to transmute more and more inarticulate form elements (which on the surface seem 'accidental' irregularities) into precise well-knit gestalt. As a rule, the art historian cannot infuse his subjective all too articulate mode of vision into the objective work of art; this he must leave to the often harmful work of the professional restorer. But in the case of literature, the historian may feel entitled to 'restore' the original text which he then envisages in a far too articulate and polished manner. In doing so he may well destroy the original irregularities which he may mistake for corruptions due to careless copyists.

A few years ago a book was published that must be of extraordinary interest to Shakespearian scholars and, at the same time, of great interest to the art psychologist. In it, Richard Flatter shows convincingly that successive editors of Shakespeare's texts have done more harm to them than the most careless copyists could ever have done. Flatter, as a translator of Shakespeare into German, paid more than usual attention to the irregularities in Shakespeare's verse in order to ascertain whether they were in some way expressive and so had to be preserved in translation. In this manner Flatter became increasingly convinced that the *First Folio* edition contained irregularities which undoubtedly possessed a dramatic justification. He found, for instance, that it was no accident when, in a dramatic dialogue, a speaker did not complete a verse left incomplete by a previous speaker, but started a new line. The new speaker might have just joined into the conversation and so could not have overheard the previous speaker, in which case it would have been preposterous for him to complete a verse, the beginning of which he could not possibly have heard. These and similar very telling irregularities were emended by later editors whose aesthetic sense was offended by the imperfections in the verse. Thus in the course of successive improvements the *First Folio* text was ultimately levelled into perfect verse, satisfying the aesthetic gestalt tendency of its readers, but shorn of its dramatic impact.[1]

Here we see the articulating gestalt tendency of the uncreative public at work. I do not poke fun at the amusing temerity of the learned art historians. Rather does our example illustrate the irresistibility of the 'Psychologist's Fallacy' which makes us, in good faith, substitute our own all too articulate gestalt perception for the original work of art which still bears the imprint of the unconscious mind's inarticulate (gestalt-free) form technique. Similarly, in judging medieval music, we may succumb to a naïve tendency to judge its still weakly articulated harmonic music according to our own standards of hearing. But if we take into account the inexorable dynamic change which the progress of form articulation must bring about in our hearing, then we may begin to understand certain cryptic remarks made by medieval musicians which seem to contradict our own experience of their music. We may all too easily feel inclined to accuse them of hard hearing because they failed to perceive what we ourselves can hear so distinctly (for instance the many strident dissonances in early medieval polyphony, see p. 88), while in fact we ourselves may be committing the 'Psychologist's Fallacy' of *retro-relating* our own advanced mode of articulation back to an historical period of art.

If it is true that inarticulate perceptions and unconscious form processes cannot be grasped by the observing surface mind, then any symbolism and other mental content which they express are already withdrawn from consciousness owing to their inarticulate structure; no further repression is necessary. I submit that we have to distinguish between the structural repression inherent in unconscious form processes and the superego's repression directed against the archaic or infantile contents symbolized in them. Freud, in a letter written in 1896 to his friend Wilhelm Fliess, dealt with this structural repression. He did not, however, follow up this idea, nor other concepts in which he was then trying to synthesize his new psychological discoveries with his previous biological and physiological research.[2]

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[1] Flatter, Richard, *Shakespeare's Producing Hand, A Study of his Marks of Expression to be found in the First Folio* (1948).

[2] Freud, S., *Aus den Anfängen der Psychoanalyse, Briefe an Wilhelm Fliess, etc.* (London, Imago Publishing Company, 1950).

I. THE 'PSYCHOLOGIST'S FALLACY'

Freud approaches the problem genetically. Both mental contents and the structures in which they are expressed belong to a definite genetic level of development and are preserved as such in the adult's unconscious mind. Every perception, or memory of a perception, has to rise through the earlier (lower) genetic levels to the mature (highest) levels. As the perception passes to a higher level it has to be 'translated' so as to assume the structure appropriate to that level. 'Every later translation inhibits the earlier one and attracts its cathexis.' Without the 'translation' the perception is dealt with according to the psychological laws valid for the earlier level and by the means then available. 'This failure of translation is what is called clinically "repression".'[1]

Ernst Kris, in his editorial note to the above passage, comments that Freud's idea of describing mental functioning genetically had not been followed up explicitly, neither by Freud himself nor his associates. The problem which Freud had in mind already in 1896 could be now delineated more clearly; it was the task of connecting the history of single ego functions with the development of the mental apparatus. I will show later, particularly in Chapters XIII and XIV, that any perception, even the shortest, has to pass through many levels of integration which could be genetically conceived. But what interests us most in our context is not the genetic viewpoint, but Freud's structural concept of repression. What the psycho-analytical literature commonly calls repression is the superego's censorship directed against specific *contents* hidden in the unconscious mind. If these rise to the surface they are 'censored'; they have to submit to certain distortions which makes sure that their true meaning is not recognized; they are then merely 'symbolized'. The *structural* repression, however, is inherent in the stratification of mental contents and forms; it means that without due 'translation' of their primitive structure the mental contents remain altogether inaccessible to the surface mind.

The 'structural' repression of inarticulate perceptions may be more fundamental and older than the human superego and its censorship of mental 'contents'. We shall come across structural repressions with a distinct biological flavour such as the repression of the overtones (harmonics) from conscious hearing; if certain sounds fall into pattern characteristic of a certain real thing they become partly repressed (see Chapter X); this repression is eminently useful for a speedy and reliable recognition of reality and we have no reason to credit the human mind with sole possession of this faculty. It appears that organisms generally tend to inhibit or repress more archaic perceptions which then survive in a dormant state on a lower level of mental or physiological functioning. P. Schilder[1] found that certain neurological paths tended to become inhibited owing to their more primitive function; for instance, a primitive perception which did not yet distinguish between the right and left extremities so that a stimulation in the right arm could be—wrongly—located in the left arm. (Such lack of finer differentiation appears to be characteristic of all archaic functions.) These less differentiated functions spring into action whenever the more highly differentiated functions become—permanently or temporarily—paralysed, for instance owing to a brain lesion. This structural repression is reminiscent of mental repression. We observe how, during sleep, when the higher mental functions are temporarily out of action, the dormant primitive functions of the unconscious mind stir out of their dormant state. Both the superego's repression and the structural repression may be manifestations of a general principle of repression inherent in the evolution of the organism. More highly differentiated functions need not destroy the more archaic functions; they could merely reduce them to a dormant state from which they may awake whenever the higher functions cease to operate.

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[1] *Ibid.*, p. 187.

We shall see that any act of creativeness in the human mind involves the temporary (cyclical) paralysis of the surface functions and a longer or shorter reactivation of more archaic and less differentiated functions. The form processes conceived on this low undifferentiated level are then —wholly or partly—rearticulated ('translated') into more differentiated structures which the surface mind can grasp. The artist wrestles with his inarticulate inspiring vision in order to mould it into more articulate forms.

We distinguished between these *transitive* depth perceptions which lead back to articulate surface perceptions and the inert *static* depth perceptions which lacked the dynamic tension leading back to the restoration of surface perception. Such static depth perceptions are the visions of dreams, day-dreams or the mystic orison in which the mystic may remain for indefinite periods. We tend to 'forget' these static depth perceptions; they appear as mere 'gaps' because no translation into more articulate structures takes place. Hence also the often painful tension which usually besets the transitive creative states is lacking; the tension of transitive states can (at least partly) be conceived as the signal of the superego's interference with the process of articulation (translation).[1]

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[1] Schilder, P., *The Image and Appearance of the Human Body* (London, Kegan Paul, 1935), pp. 26–7.

The *transitive* inarticulate vision is ambiguous and in some yet unexplained way anticipates and comprehends all later attempts at articulation. The superego steers the articulation process, so that the future definite structure carries no revealing feature and merely represents a rationally unintelligible 'symbol'. (See about a possible revision of the theory of symbolization from this structural viewpoint at the end of Chapter VI.) The lack of the creative tension in the *static* inarticulate perception would confirm the important conclusion that the superego's repression is not directed against the original 'untranslated' expression of the repressed urges, but only against the secondary articulation (translation) process which alone could make them understandable to the surface mind.

The mystic returns to surface consciousness with the memory of deeply significant visions without a trace of any definite image. Just because the *static* mystic orison is so far removed from ordinary consciousness so that every attempt at a secondary gestalt elaboration must fail, the mystic has a truer memory of inarticulate perceptions than more 'scientific' minds. The mystic orison does not appear to him as a mere emptiness or interruption of consciousness (he values it too much for that), nor does he try to project a more articulate gestalt into it; he alone among introspecting observers is safe from the 'Psychologist's Fallacy' in its two varieties. It is significant that William James, with his incomparable flair for inarticulate perceptions, should have devoted his second great work to the analysis of the mystic orison.[2] He takes mystics' reports of their ineffable visions at their face value, and criticizes the allegedly scientific scepsis of his fellow psychologists. Freud, like William James, gives credence to the mystic's reports about a feeling of mystic union with the Universe. He explains it as a regression to an early infantile state of 'oceanic' consciousness when the child's ego was not yet differentiated from the surrounding external world; hence the feeling of a union of the ego with the surrounding world was no mere illusion, but the correct psychological description of an infantile state which is otherwise inaccessible to direct introspection.

Similarly the mystic's report about the deeper 'more general' reality of his vision is justified if we consider the lack of differentiation in the child's still inarticulate mode of perception. We shall, in the next chapter, discuss the less differentiated and 'more general' mode of infantile perception to which the adult may revert in his dream visions.[1] The mystic feeling accompanying these 'too general' mystic orisons is explained by our rational surface mind's incapacity to visualize these totally inarticulate images. They are indeed invisible to our ordinary waking consciousness, and no 'forgetting' is necessary to eliminate them from our waking memory.[2]

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[1] See later on, p. 61.

[2] James, William, *The Varieties of Religious Experience* (London, Longmans, Green, 1911).

James mentions that the mystic has a feeling of continuity when he reverts to the mystic orison; he can continue from where he had left off as though the 'forgotten' visions of the previous orisons had at once become accessible to his low-level consciousness. Something similar might have happened in those cases reported by Freud when 'forgotten' perceptions are remembered in the dream state. Though the reports are not clear, the dreamers appear to have remembered inarticulate perceptions made on an unconscious level. Freud quotes Havelock Ellis's story that he could remember the name of a Spanish railway station which he might have read absent-mindedly while passing through on a journey. Ellis could not recall any such name after waking, but discovered that he had in fact touched a township of this name on one of his journeys. One of Freud's patients dreamt that he ordered a 'Kontuszówka' in a café. After having reported his dream, he wondered what the name might mean, as he never heard it before. Freud was able to inform him that it was the name of a Polish liquor which was freely advertised, so that the name was certainly not invented by the patient in his dream. The patient would not first believe his analyst, but some days later noticed hoardings, carrying the advertisement, at a street corner which for months past he had been obliged to pass at least twice a day.[3]

One might doubt whether either Ellis or Freud's patient recalled in their dreams a name which they had known, but had 'forgotten' afterwards, or whether they were able for the first time to tap the memories of perceptions which had never become conscious because they were made absent-mindedly. The inaccessibility of perceptions made in an absent-minded state to surface consciousness is impressively demonstrated in a passage from Dostoiewski's *Crime and Punishment* which Varendonck quotes. In the book, Raskolnikoff meets his friend in a quite unfamiliar place. 'I was coming to you,' began R., 'but how is it that on leaving the Haymarket I come along the Nevsky Prospect? I never pass this way; I always turn to the right when I get to the bottom of the Haymarket; and isn't it the way to get to your place? Scarcely have I turned this way but I see you! How strange!' . . . 'But apparently you have been sleeping all these days,' replied Svidrigailoff; 'I myself gave you the address of this café, and it is not surprising that you should have come straight to it. I told you the way to come and the hours at which I could be found. Do you remember it?' 'I have forgotten it,' said Raskolnikoff with surprise. 'I believe you; I gave you the directions twice over; the address has engraved itself mechanically upon your memory and has guided you unconsciously. Moreover while I was speaking to you I noticed that you were absent-minded.'

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[1] In Chapter XI we shall discuss Prof. Gombrich's theory that the 'abstract' imagery of creative thinking may merely represent the undifferentiated perception of the child which we can no longer grasp as 'concrete' images and which therefore appear as 'abstract'.

[2] See the reason why a joke need not be 'forgotten' by those naïve people who can laugh about the same joke repeatedly, in Chapter VIII.

[3] Freud, S., *The Interpretation of Dreams* (London, George Allen and Unwin, 1913), p. 10.

The rareness of cases where we can verify the existence of unconscious perceptions running underneath surface perceptions, or occurring in an absent-minded state, concedes our assumption that they are inaccessible to consciousness whatever their content may be. All the evidence of psycho-analysis testifies to the complexity and wealth of unconscious mental processes, and points to an equal wealth in unconscious perceptions of which we know next to nothing. We may perhaps attribute them to an altogether different perception and memory system or rather to many such systems overlying each other. In the inarticulate state of consciousness such as exists in a dream or in creative divination we may tap those hidden and variously structured memory systems.

Accessioned No. 257

II

Gestalt-free Art Form[1]

IN his book on *Art and Industry*, Sir Herbert Read draws attention to the fact that some examples of modern art do not comply with the teachings of the Gestalt Theory. Some modern paintings make the eye 'wander' (p. 145).

In traditional painting there are always to be found a few eye-catching form features which attract attention at once. They are the nucleus of the composition. Round them the artist builds up the other less striking forms in a well-defined and clear juxtaposition. There is no doubt left about the way in which the artist wanted his picture to be viewed.

This pregnant and simple structure of traditional art bears out the teachings of the Gestalt Theory[2] according to which all perception or creation of form is subject to a tendency towards perceiving or producing as pregnant and simple a structure as possible. The eye as a sense organ only registers an unorganized chaotic mosaic of dots; the brain projects that definite configuration into the chaos which we perceive as the forms and shapes around us.

Even if the shapes around us are really chaotic the brain will still project some order into them. From a jumble of dots the eye (or more correctly the brain) will pick out a few which fall into some pattern or which could be interpreted as a human or animal shape. When gazing into the drifting clouds or into the embers of a dying fire or at a piece of wrinkled bark, we will easily project such form phantasies into them. If the form material already possesses some order there the brain will project even better order into it. In a row of otherwise perfect circles we will all too easily overlook little gaps and bumps; indeed we have to make a definite effort if we want to discover these flaws.

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[1] This chapter and Chapters III and XVI are to a great extent reprinted from two papers, 'Unconscious Form-Creation in Art', *British Journal of Medical Psychology*, XXI (1948), XXII (1949). Thanks are due to the editor for permitting the reprint.

[2] Köhler, W., *Gestalt Psychology* (1930); Petermann, B., *The Gestalt Theory and the Problem of Configuration* (1932); Hebb, D. O., *The Organization of Behavior*, etc. (1949).

The overlooking of little gaps and bumps in otherwise coherent and simple shapes corresponds to important functions within the general gestalt tendency towards a pregnant, coherent, and simple gestalt. If we are made to listen to a jumble of nonsensical syllables we will unfailingly project a rhythmical and melodious pattern into them. When we are asked to repeat them we will reproduce them in a better gestalt. The gap-filling and erasing of bumps recurs: syllables obstructing the easy flow of rhythm are apt to be suppressed; missing feet are readily interpolated to make up the complete rhythm.

Poetry produces form material already fitted into supreme gestalt. Art shows another aspect of good gestalt which will become very important to us: a 'good' gestalt is in its pregnant and harmonious appearance always an aesthetically pleasing gestalt and all improvements by the gestalt process on the form material also enhance the aesthetic effect. Modern art which is lacking in pregnant gestalt generally also lacks a pleasing aesthetic impression. This brings us back to the point from which we started. Sir Herbert Read points out that the 'eye-wandering' effect of some modern painting contradicts the Gestalt Theory. Traditional painting excludes eye-wandering by its good gestalt. The eye is presented with a pregnant pattern, is attracted by it at once and so is given a stable centre of attention. Any scrutiny of the picture, be it the analysis of the colour scheme, of the distribution of light and shade, or of the linear harmony, will unfailingly start from and return to the same eye-catching features.

In those modern paintings to which Sir Herbert Read refers such dominant form features do not exist. Many forms have equal power to attract the eye so we are left in doubt where we should direct our attention first. Moreover, overlapping and superimposition of forms occur which add to the general ambiguity and doubt, and obstruct the formation of a pregnant and unambiguous gestalt pattern.

Let us study structural ambiguity in a more common example. A good wall-paper pattern must avoid a precise picture-like structure. What would happen if it possessed the eye-catching quality of a picture?

The eye would not be attracted only once; through the uniform repetition of the pattern all over the wall the same pregnant picture would obtrude itself *ad nauseam*, as often happens with Rococo tapestry where the same sentimental scene hits our eye wherever we try to look in order to avoid it.

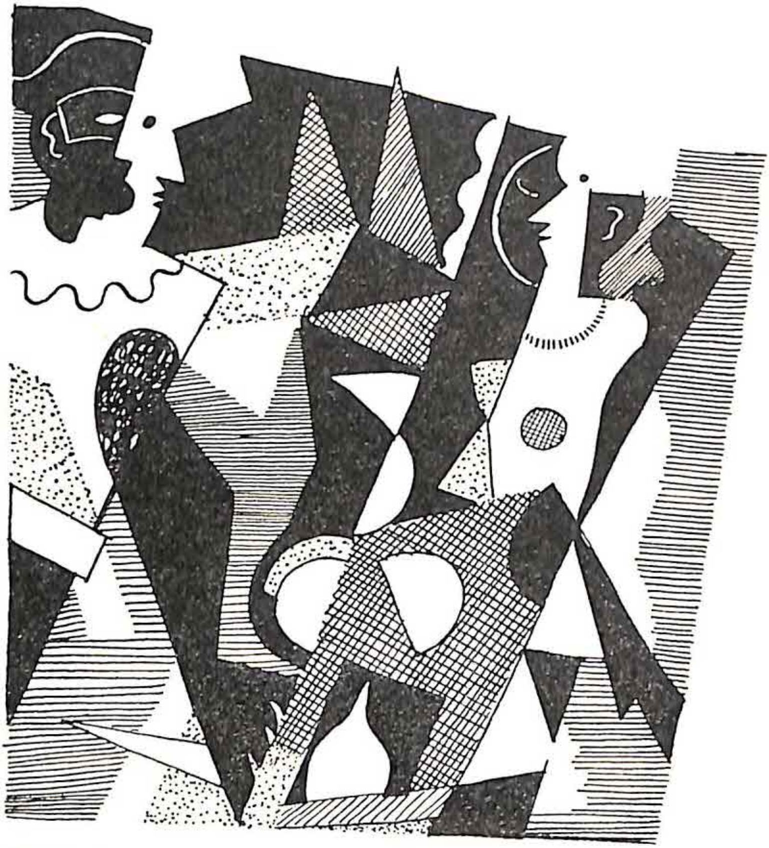

FIG. 2. Lack of eye-catching features and form ambiguity in modern painting (after Picasso).

A good wall-paper pattern must not be 'eye-catching' for another reason. It forms only a neutral background to real pictures and furniture and must not contend with them in attracting the eye. We might look absent-mindedly at a wall-paper a hundred times without once realizing what its pattern represents. The 'eye-repelling' effect is based first on the lack of eye-catching features and the equality of single forms but also on the same superimposition and overlapping of forms which occur in modern painting. The superimposition of several patterns might not become apparent when we look at the single pattern without its repetition. But, if we repeat the pattern, we will often observe how easily the boundaries between the repeated patterns become obliterated; new form combinations are made possible between adjoining parts of the patterns; for instance, the bottom part will fit with the top part into a new unsuspected pattern which appears superimposed over the original pattern, so that it becomes exceedingly difficult to decide where the original pattern begins or ends; the pattern seems to spread in unbroken continuity over the whole wall. The ambiguity of its structure becomes apparent when we lie sick in bed one day, and in sheer boredom start to study the wall-paper. We will soon discover that it can be interpreted in different ways and its single forms can be grouped into different patterns which now appear overlapping and superimposed. Once one of the possible form arrangements catches our fancy the other will disappear and vice versa. (We refer later to the mutual exclusion of superimposed forms.) Once we have made a definite choice, say we have projected a funny human face into the pattern, we cannot help seeing that face again and again, and even later when we have recovered and happen to come into that room the same fatal face will greet us from every corner. (Incidentally, this is an example of the permanency of gestalt perception discussed at the end of Chapter III.)

A good wall-paper pattern has good reason not to submit to the gestalt tendency towards a pregnant gestalt. On the contrary, it must try to be as ambiguous and indefinite as possible. But just this avoidance of good gestalt proves in a way the correctness of the Gestalt Theory. The eye, always eager to perceive a good gestalt, will be repelled by the wall-paper as it should be and glide to the real pictures to which the wall-paper gives only the neutral background.

But why should a real picture such as a modern painting adopt this eye-repelling technique? The eye glides off the ambiguous forms which have nothing to fix its attention and begins therefore to 'wander' aimlessly. The superimposition of forms can become particularly distressing because the superimposed forms may tend to displace each other. This could happen in a double exposure in photography. We may be able to pick out one of the photographs; then the other will fade in our perception and vice versa. To fit into a gestalt the single forms must be juxtaposed not superimposed. So if we pick out an object belonging to one photograph, say a house, it will call up only those object forms which belong to the same photograph and are therefore neatly juxtaposed. It overlaps with object forms belonging to the other photograph unless the two pictures have been fused into a single trick photograph.[1] In a painting by Picasso we might find a guitar superimposed upon a human limb. When we fix our attention first on the guitar and then on the human limb, each of the two objects might call up another set of adjoining forms to which it is juxtaposable. As the eye glides over the superimposed and overlapping forms the whole structure of the picture seems to shift continually as each form calls up a new juxtaposition of forms. An attempt at a definite form analysis such as is possible with traditional painting would fail here and would leave our eyes blurred and strained.

Still, even compared with traditional painting, the inarticulate gestalt-free structure of modern painting is nothing quite new. Let us remember that the gestalt-free wall-paper serves as a *background* which repels the eye towards other objects. Similarly, the background forms in traditional painting often appear blurred and sketchy and altogether lacking in good gestalt; only the figures in the foreground possess the gestalt required by the Gestalt Theory. Hence, it could be correctly said that the gestalt-free modern painting showed background structure throughout.

As it happens the Gestalt Psychologists have a good deal to say about the relationship between figure and background forms. According to them, background forms have no psychological existence whatsoever. The retina at the back of the eyeball may duly register them, but they are not included in the chosen gestalt (the figure), and therefore not perceived at all. The Gestalt Psychologists advance quite impressive experimental evidence to confirm this theoretical view. Köhler[2] demonstrates the visual non-existence of background forms—or for that matter of any other form not included in the figure—in a pretty example. In ordinary geographical maps the masses of the land are delineated as dark figures against the lighter background of the sea. So, we perceive the famous boot of Italy and the outstretched palm of Greece. But we do not really see in the same plastic manner the form of the Adriatic Sea between them. If asked could we say off-hand what object it resembles? Surely not; in fact we are totally unfamiliar with it. This can be easily demonstrated if we are allowed to have a look at one of those maritime maps where the relationship between land and sea is reversed; where the sea is mapped out in plastic detail and the land left as a white background (apart from a narrow strip near the coast). Now the sea is perceived as the figure standing out against the background of land.

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[1] We shall distinguish dream 'condensations' from genuine 'superimposed' dream visions; the 'condensations' correspond to the single trick photograph; see p. 53.

[2] *Gestalt Psychology* (1930), p. 151.

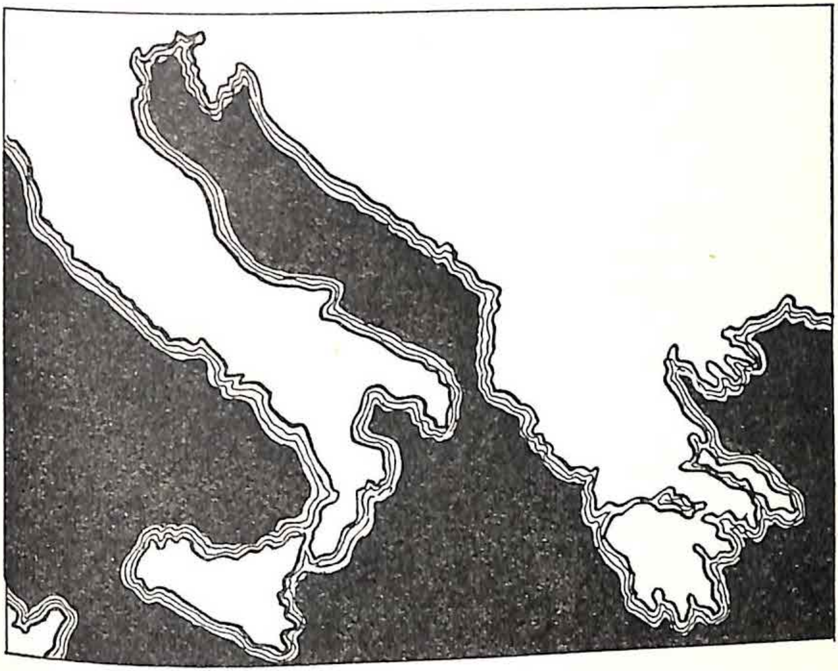

FIG. 3. The 'invisible' shape of the Adriatic as the background negative between Italy and Greece.

Looking at such a map of the Adriatic its form will strike us as something quite new and never seen before; and we will fail to recognize the boot of Italy now shown only as neutral background. The line dividing land and sea is projected upon the retina just as in ordinary maps. But as the gestalt combination of the figure has changed our perception has also changed completely; this proves, or is meant to prove, that really only the few forms chosen as figures are really perceived while any other possible form combination has no visual existence whatsoever.

Artists are queer fellows. They do not behave as we would expect them to behave according to this theory. They devote, in fact, a great deal of attention and painstaking love to such invisible form combinations including in particular just those negative background forms cut out by the figure from the white background. When the art-school student takes up drawing he is made to watch not only the outline of the object he draws (the figure of Gestalt Psychology), but also the negative forms which the figure cuts out from the background. The spectator of such a picture will not perceive them anyway, they have no visual existence whatsoever; why then this bother to give them an aesthetic shape? The pupil is also advised to watch other form combinations still further removed from the 'really perceived' figure. Such forms are abstract geometrical patterns which are superimposed across the boundaries of real objects, for instance, a triangle which the elbow of a human figure might form with an adjoining piece of the arm-chair on which it rests; or the pupil has to contract into one single form the masses of light and shade which stretch right across the boundaries of the real figures. These masses of light and shade are again form patterns superimposed on the real figures (Chiaroscuro).

What the pupil is taught amounts to a technique of perception *against* the gestalt principle, particularly as he has to look out for patterns which are superimposed over the outlines of real objects. Ordinary people without artistic training see such abstract superimposed patterns only under exceptional circumstances. Imagine a car drive down a country road in the slowly rising morning mist. Only a few objects might become visible or perhaps only segments of them; a corner of a house, a bit of fence next to it and a few cobblestones below; but so little might be revealed that it becomes difficult to guess the objects of which they form a part. Then the odd bits might join up into some imaginary object never seen before on that old familiar road, until the mist lifts further to reveal the deception. As with a jerk the torn-off parts revert into their familiar context as ordinary things along a country road and even with a determined effort it might be impossible to project the vanished apparition into the completely revealed objects, though the segments which helped to build it up are still plainly visible before our eyes. According the Gestalt Theory it is the stronger gestalt combination into real things which prevents us from joining them into any other form combination superimposed across the boundaries of the real things. The art student, however, is trained to resist the gestalt principle and to carve up the real objects into abstract bits and rejoin them into superimposed patterns.

We see that superimposition of forms which seemed to be restricted to modern painting occurs also with traditional art, only that the competing superimposed form combinations do not attain equal power with the figure to attract attention to themselves and to make the eye 'wander'. They remain hidden under the surface of figure perception, while in modern painting the several superimposed form combinations prevent the formation of a stable and pregnant surface figure.

From the point of view of the Gestalt Theory no good purpose can be served by the artist's play with competing superimposed form combinations. If they remain hidden as in traditional painting the spectator will see only the figure, the real object which is represented. The other competing form combinations—whether the background negatives, the masses of light and shade or the abstract patterns formed by segments of real things—have no visual existence whatsoever, like the form of the sea on ordinary geographical maps. Why then really bother about them?

But the artist knows differently from a hundredfold experience. He knows of the great improvement in the general impression of the picture if all these other invisible form combinations are well considered and lovingly shaped. The mature artist considers all these concurring form events automatically as he draws one single line which affects them all.[1]

Why should form combinations which remain 'invisible' still exert such an influence on the general appearance of the picture and be so highly esteemed by the artists themselves? If they have an influence at all they must have also visual existence. If they are not consciously perceived then they are perceived at least unconsciously. This explanation must account also for the pleasing effect which a good wall-paper pattern exerts on the general atmosphere of a room. We may be living in that room without ever noticing its form detail. Still it makes all the difference whether the wall-paper pattern is well designed or not. Obviously its form is perceived; if not consciously, then unconsciously.

There are other forms in a painting unseen in the ordinary way, but which nevertheless exert great influence. I refer to the minute, almost microscopic, scribbles which make up the technique of a great draughtsman or the brush work of a great painter. A good technique is an achievement much coveted by the art student. But why again? If we believe the Gestalt Theory the chaotic scribbles of a technique evade perception if not because of their small size then because of their erratic and altogether chaotic shapes. The equalizing effect of gestalt perception melts these little strokes and arabesques down to the same grey shading or to the continuous outline of real objects. The inane parallel shading of a neat commercial artist will produce in conscious perception the same grey as the sensitive and nervous scribbles of Rembrandt. As a grey tone they may be identical, but emotionally the parallel neat shading of the commercial artist remains dead compared with the secret life active in the technique of Rembrandt.[1]

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[1] See Plate I (detail of Georges de la Tour's *Nativity*); the background negative formed between the two figures is aesthetically exquisite.

The answer is the same: consciously the same grey tone is produced, but the unseen scribbled forms of technique are not lost to perception; thus the enormous difference in emotional power is explained, and also the great esteem in which a sensitive nervous technique is held by the artists themselves.

The gestalt principle as taught by the Gestalt Theory can hold good only for conscious surface perception. In fairness to the achievements of experimental gestalt psychologists we must not forget that they themselves never claimed to offer more than a surface psychology which excluded the mental phenomena in deeper layers of the mind.

There does not exist a depth psychology of perception corresponding to the elaborate surface psychology of perception offered by the Gestalt Theory; however, psycho-analysis as the depth psychology *par excellence* shows that perception in the depth of our mind (the 'depth mind' as one would call it in contrast to the surface mind) is fundamentally different from surface perception. We found that there must be an unconscious perception which is not bound by the conscious gestalt (the surface gestalt) and which perceives competing form combinations such as background negatives or the minute forms of technique. Psychoanalysis shows that depth perception is not only free from the surface gestalt but follows a different form principle altogether.

Only when our surface mind is quite awake with rational tension at its highest is our eye sharply focused on the real things around us and strives to perceive as pregnant and simple a gestalt as possible. But when we turn our eye inwards, as in play, art, day-dreaming, or in the deep dreams of our sleep, and the mental energy is drained from the surface of the mind into its depth, then our vision loses its sharp and well-defined edge, the forms perceived become more fluid and intermingle and separate in a continuous flux.

As we withdraw further from the surface of the mind a new form principle gains strength, altogether opposed to the gestalt principle so that it could best be defined by a negation of the gestalt principle. So, dream visions do not tend to precision, simplicity, and unambiguity, but on the contrary to vagueness, diffusion, and ambiguity. Freud mentions these differences in the perceptions of the surface and depth mind in connexion with the secondary elaboration of dream memories by the waking mind, where the difference makes itself most felt. In art the interplay between surface and depth perception occurs on a far greater scale and the differences in technique become of supreme importance. The few remarks made by Freud about the secondary elaboration of dreams by the surface mind will form the nucleus of a new dynamic theory of art form.

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[1] See Plate II.

Depth vision also knows of a kind of superimposed vision which is impossible in surface vision. In ordinary vision, two superimposed photographs of different subjects could not be viewed simultaneously provided that they did not combine to make a trick photograph containing form elements belonging to both photographs; in modern paintings we could either pick out one or the other of the two superimposed patterns, say either the guitar or the human limb, but not both.

In dreams, the impossible becomes possible. Often dream images appear to contain several totally different thing forms, say a pram, a hearse, and a cannon at the same time, as though their shapes were superimposed upon one another. To imagine such visions better, incomprehensible as they are to our surface mind, we have to remember that the depth mind of the adult represents really the child mind which persists in the unconscious. Our depth mind still clings to the wild passions of childhood and its technique preserves the infantile functions, among them also the infantile technique of perception.

The vagueness and ambiguity of dream visions and also the superimposition of thing forms win a deeper significance if we try to put ourselves back into the mind of a child. Child psychologists conclude from the way in which the child takes notice of his surroundings that to him the things of the world appear much less *differentiated* than to the grown-up. For the very young child there exists only one single thing filling the universe; it is the Ego of the child himself which he has not yet learned to differentiate from the outer world. His mother would belong to him like a limb of his own body. Later the child learns to single out a few broad classes of things which in a chaotic medley contain things which to a grown-up would appear totally different. The child-things are 'too general'; all male persons are 'papa'; a thing called 'It burns' might comprise such different objects as hot soup, the candle flame, the heat in the garden, etc.[1]

In spite of this chaotic differentiation of things, we have no reason whatever to suspect that the child himself experiences his world as vague or ambiguous. The child cannot feel the ambiguity as he does not know a subtler differentiation; his own broader differentiation, queer as it might appear to the adult, suits his particular stage of development.

When an adult tries to visualize such an undifferentiated (child)-thing all he can do is to fill his several (adult)-things into its all too wide frame, as though he were superimposing them. But, of course, the child himself does not perceive anything like superimposition as this again would presuppose the knowledge of the more differentiated things of the adult. Nor does the adult experience superimposition when he returns in his dream vision to the less differentiated mode of infantile perception. In our dreams we might see a thing which appears, while we are dreaming, quite ordinary and simple, but when we are awake and try to recall it we become aware of its 'too general' content. In trying to describe it we get into difficulties: 'I saw something approaching', we might say, 'a pram perhaps or was it not a hearse . . . it could have also been a cannon . . . etc.' What we are doing is again superimposing the several adult-things into the dream-thing; but the superimposition occurs only in the waking state after we have returned to the finer differentiation of the adult; the dream vision which appeared simple and clear in the dream, now appears vague and ambiguous or superimposed. Only from the height of the surface mind does the infantile technique of perception persisting in the depth mind seem chaotic and totally undifferentiated, because the gestalt technique of the surface mind cannot grasp any other structure than gestalt on its own particular level of differentiation. The difference between surface and depth perception is not the extreme contrast which it appears to be to the surface mind—one precise and differentiated, the other chaotic and undifferentiated—but it is a difference of gradual transition from a low primitive stage of differentiation up to the highest gestalt level.

As long as we keep in mind the fact that the description of depth vision as gestalt-free, inarticulate, chaotic, undifferentiated, vague, superimposed fits only the naïve impression of our surface mind there is nothing gained by dropping these terms in favour of a cumbersome terminology referring only to higher and lower levels of differentiation.

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[1] Examples taken from Varendonck, J., *The Evolution of the Conscious Faculties* (George Allen and Unwin, 1923), p. 96. See about the development of the libido as the decisive factor in the child's thing differentiation in Chapter XI.

In our analysis of art form we can expect that it is gestalt-bound only to the extent to which the surface mind contributed to its structure, but otherwise it is gestalt-free.

The gestalt-free structure of modern painting is explained by the total inactivity of the surface mind. The modern artist tends to create more automatically, with less conscious form control, than the traditional artist. At the beginning he knows only vaguely, if at all, what he is going to produce; his mind is curiously empty while he watches passively the forms growing from under his brush. Automatic form control means that the depth mind has taken over the form production which therefore now reflects the gestalt-free structure of the depth mind. Hence, the lack of a pregnant eye-catching pattern, the super imposition, overlapping, and general ambiguity of forms which could never be achieved by conscious form control.[1]

The traditional artist produces his forms partly by conscious form control, partly automatically; the proportion between conscious and automatic form control decides the proportion of gestalt-bound and gestalt-free form which the traditional work of art contains. The minute forms of technique and the vague background forms are gestalt-free or gestalt-weak; only the big outlines and surfaces of the real objects which the picture represents in the foreground are gestalt-bound. The form control of the traditional artist is automatic to a far greater extent than might be realized.

The artist often sketches background forms in an absent-minded way as though he were not giving his full attention to them. While his eye still focuses on the figures of the foreground his hand is already busy on the background behind it. The absent-mindedness and the 'focusing away' is, of course, not negligence, but a kind of diffuse attention by which the artist looks at figure and background in one glance (an impossible feat of course from the point of view of the Gestalt Theory). The appearance of negligence is misleading for the imitator who will exclusively concentrate on the figures and after finishing them add 'something' in the background to give his figures a more plastic appearance. (About plastic mannerisms see further below.)

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[1] Prof. Gombrich explains the 'abstract' (thing-free) content of art from a reactivation of the child's undifferentiated thing perception which we cannot—consciously—appreciate as such; see p. 169.

Wholly automatic and completely withdrawn from conscious form control are the chaotic forms of 'technique'; in technique forms appear to be even more accidental and unintentional than the sketchy background forms. We can hardly make out any structure at all and cannot even say whether the forms are superimposed or overlapping. But this total lack of gestalt proves their origin from the depth mind. The nervous and erratic quality of a good technique could never be achieved by conscious effort. The nervous hand movements guiding the brush oscillate without aim and direction and appear—wrongly—as accidental.

The evolution from traditional art to modern art simply withdraws the bigger forms also from conscious control; so the vague and ambiguous forms of automatic form creation are no longer contained in the technique or in the misty forms of the background, but break out from their hide-out and invade the whole picture. In this sense we can justify our earlier statement that modern painting has background structure throughout.[1]

The structural difference between traditional and modern art amounts to very little. Traditional art contains the same wealth of gestalt-free form which only remains hidden under a thin surface gestalt composed of the big outlines of real objects. In number and variety these big outlines are few and unimportant compared with the innumerable, intricate arabesques of technique of which they are invisibly composed.

Modern art dispenses with the surface gestalt and lays bare the automatic creations of our depth mind.

This evolution is part of a general trend in our culture which values little the surface mind and looks for deeper insight beyond the limits of our rationality. The same development occurred in the philosophy of Bergson. You might call it mysticism; but you will see that Bergson by his attitude could overcome the usual limitations of our surface mind which dismisses the visions of our depth mind as chaotic. Bergson takes his stand in the depth mind and reverses the usual evaluation. What Bergson calls metaphysical intuition is a gestalt-free vision, capable of superimposed perception. Let us hear his own masterful description of surface and depth vision:

'When I direct my attention inward to contemplate my own self . . . I perceive at first, as a crust solidified on the surface, all the perceptions which come to it from the material world. These perceptions are clear, distinct, juxtaposed or juxtaposable one with another; they tend to group themselves into objects. . . . But if I draw myself in from the periphery towards the centre . . . I find an altogether different thing. There is beneath these sharply cut crystals and this frozen surface, a continuous flux which is not comparable to any flux I have ever seen. There is a succession of states each of which announces that which follows and contains that which precedes it. In reality no one begins or ends, but all extend into each other.'[1]

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[1] See Moholy-Nagy's observation that some modern abstract art may represent a 'close-up' of minute form details in previous realistic art, p. 174.

Bergson recognizes that juxtaposition is essential for surface perception, but not for depth perception. To achieve intuition he gives a practical recipe; he recommends one to visualize at the same time a diversity of objects in superimposition.

'By choosing images as dissimilar as possible, we shall prevent any one of them from usurping the place of the intuition it is intended to call up, since it would then be driven away at once by its rivals. By providing that, in spite of their differences of aspects, they all require from the mind the same kind of attention . . . we shall gradually accustom consciousness to a particular and clearly defined disposition.'[2]

Bergson recognizes that gestalt-free perception cannot be described in terms of surface perception and cleverly gives the recipe by which the reader can achieve a first-hand experience himself. We shall see that art form often employs the same recipe, namely superimposition of equally strong forms in order to press perception down to a gestalt-free level. One example of this artistic technique we know already: the superimposition in modern painting; a second more important example is polyphony in music which we shall discuss later.

Bergson recognizes another result of modern depth psychology; he does not pretend to be the discoverer of metaphysical intuition. According to him all creative thinking begins with a state of fluid vision comparable to intuition from which, however, later rational ideas emerge. These Bergson disdains and by suppressing rational ideas contrives to remain in the contemplation of the gestalt-free creative vision.

We mentioned in Chapter I that not only creative thinking but all creative activity consisted of the double rhythm of a transitive gestalt-free vision out of which emerge definite form-ideas which can be grasped by the surface mind. The creative state itself wrongly appears as an emptiness of consciousness only because we cannot grasp its fluid content in the definite perceptions of the surface mind. Bergson and the modern 'automatic' painter both contrive to remain statically in the initial stage of fluid gestalt-free perception by suppressing all definite formative ideas, both following the general trend of our culture which disdains the rational surface mind (see *Postscript*).

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[1] Bergson, Henri, *An Introduction to Metaphysics* (Macmillan and Co., 1913), pp. 8 *et seq.*

[2] *Ibid.*, p. 14.

The difference between the creative activity of the traditional artist and that of the modern automatic artist will now appear not so great. The traditional artist too knows the state of fluid and gestalt-free vision, but he forgets it as soon as definite formative ideas emerge.[1] If we should ask him what the content of his inspiration had been he will point at his finished picture. True he had often been in painful doubt and striven hard to give definite form to his inspiration. But he feels that the forms had been in his mind from the beginning 'only he could not quite grasp them at once.' Had his inspiration really been just the sum of all later form ideas no search would have been necessary. But his inspiring vision had a special character of its own. As the definite form ideas emerged in succession it welcomed them if they fitted into its mould or rejected them if they did not, and its judgement was clear and spontaneous showing that the inspiring vision in spite of its fluidity had been clear and exact. This argument follows the argument by which William James demonstrates the peculiar nature of the vague 'transitive' tracts in the everyday thought-stream. The transitive tracts of everyday thinking and the fluid visions of creative thinking are really the same phenomenon and their difference a matter of degree. How can we deny that a new idea in everyday thinking might not have a creative spark too?

All artistic perception possesses a gestalt-free element. The art-school student is taught the technique by the same recipe which Bergson uses to teach intuition. The student is required to concentrate on several gestalt combinations which actually exclude one another. We remember that the pupil is exhorted not to concentrate exclusively on the shape of the real object he draws, but to watch at the same time other competing form events like background negatives, masses of light and shade, and superimposed geometrical patterns cutting across the boundaries of real objects. Ordinary surface perception cannot achieve such a feat of simultaneous perception of competing form events. So the pupil acquires that particular technique of gestalt-free diffuse vision which, to my mind, is the artistic way of seeing the world. With the traditional artist, definite form ideas emerge from this diffuse vision; and so he returns to the surface gestalt, to the shape of real objects, while the 'automatic' artist remains in his diffuse vision and allows the competing form events to grow and overwhelm the surface gestalt.

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[1] See Chapter I; the wrong recollection is another example of the 'Psychologist's Fallacy'.

Until that critical point is reached where the competing form events become equally strong the surface gestalt does not visibly weaken; on the contrary, traditional art uses the strengthening of competing form events to increase the plastic and aesthetic appearance of the surface gestalt. The threatened surface gestalt seems to gain in strength as the contest becomes more and more critical. When the art student obeys the advice of his teacher and shapes lovingly those invisible competing form events he will find to his pleasant surprise that he has in fact improved the appearance of the conscious object the aesthetic shape of which had been his only concern in the beginning. The object will appear more plastic and altogether more aesthetic the more the student has succeeded in shaping simultaneously background forms, masses of light and shade and all the other possible competing form events.

This result is paradoxical. How can the strengthening of the competing forms and a corresponding weakening of the surface gestalt almost to the point of ambiguity have the effect of making the conscious gestalt even more pregnant and aesthetic? It might be the secret unconscious struggle between surface and depth perception which animates the surface gestalt, as though the threatened surface vision had to endow itself with special gifts of grace and power to keep attention fixed upon itself. The greater the danger to be overpowered by depth perception the more lively and plastic appears the surface gestalt until the critical point is reached where the unconsciously perceived form events attain equal power to attract attention; then in a sudden disaster the surface dissolves into the blur and fog of ambiguous and superimposed vision—as happens in modern painting.

We have tried to emphasize the smooth transition between traditional and modern gestalt-free painting as far as actual structure is concerned. We now see the reason why the subjective impression is so different; a sudden transition from the highest plastic effects of good gestalt to unaesthetic chaos occurs when the surface gestalt has to give way after its last and greatest successes.[1]

We will try later to explain the aesthetic feeling from its function to secure surface perception against the pressure of depth perception, and the paradox which we have just tried to solve will form part of our later argument.[1]

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[1] See for the corresponding abrupt transition from traditional realistic art to modern thing-free ('abstract') art, p. 174.

There are mannerisms which serve to produce plastic effects in visual arts as well as in music. Such a mannerism is the 'plastic contour' where a certain treatment of the contour gives the objects which it outlines a more plastic appearance. A contour does not exist in reality or in the image projected on the retina of the eye. It is an artistic convention to which we have become so accustomed that we overlook it and it does not detract, therefore, from the 'realistic' effect of a drawing done mainly in outlines. Still, the thin line, which the contour usually is, must not become too strong so that it can no longer be overlooked and appears as a shape of its own sandwiched between the object forms. The thick lead contours in old church windows definitely affect their realistic impression. But to a certain point we can give the contour a pregnant and significant form of its own without attracting conscious attention to it. Again, until such a critical point is reached a strengthening of the contour's own shape adds a better plastic effect to the object form it circumscribes. This effect is utilized by the mannerism of the 'plastic contour' (as my teacher used to call it). By varying the pressure on the pencil, the contour swells here into blackness, there it narrows and pales away as the pressure is relaxed, or fades into nothing. Seen as a shape of its own, such a contour varying in width and blackness resembles a twisting and partly torn ribbon or a meandering little river running round the object form. My teacher advised me to emphasize the contour in shaded parts of the object and to weaken it in lighted parts. But this mattered very little. As long as I varied sufficiently thickness and depth of the contour it gave the same good plastic effect to the object drawn. The plastic effect disappears when, as happens in Picasso's recent paintings, the contour swells to deep and elaborate furrows which can no longer be overlooked in our conscious perception. Then the critical point up to which the strengthening of the contour helps the plastic effect has been overstepped.

A more elaborate variety of the plastic contour is the mannerism of Renaissance artists of going over the same contour several times as though the artist wanted to correct it just a little each time. So several superimposed outlines are produced which are near enough to each other to become fused in conscious surface perception into a single object form. Some modern draughtsmen simply duplicate or even triplicate every section of the contour as a matter of habit; again the pleasing plastic effect is attained.

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[1] We shall then be able to hold apart the aesthetic feeling (which denotes a successful surface articulation) from the plastic feeling which is the signal of unconscious repressed perceptions. The dualism of aesthetic and plastic feelings will resolve itself into the dualism of the opposing articulation and repression processes within our perception.

The secret of a full 'juicy' violin tone can also be interpreted as a plastic mannerism which strengthens inarticulate elements of the melody not perceived consciously as parts of the melody. Some violinists achieve a fuller, more 'plastic' tone quality by making every long-drawn-out note wobble in a strong vibrato and they achieve brilliance of top notes by introducing them with a glissando. There is nothing wrong in using vibratos and glissandos. Good artists use them far oftener than we might think. But neither are they used as conscious mannerisms, nor are they ever consciously perceived. We are therefore inclined to connect the idea of glissandos and vibratos only with the mannerisms of 'soft' dance music. But they are, in fact, part of any good violinist's technique. The artist does not control their application consciously by counting how often the vibrato swings up and down during the duration of the bar, nor does he know the difference in pitch within which the vibrato swings. The vibrato is inarticulate in rhythm as well as in pitch. Both glissandos and vibratos occur freely in the music of primitive peoples. A primitive melody sounds to our ear as a never-ending sequence of glissandos and vibratos and we look in vain for resting points on articulate tone steps or rhythmical beats.

In civilized melody the glissandos and vibratos are interspersed within the articulate melody which proceeds in definite rhythm and the definite tone steps of the musical scale. Only the articulate melody is consciously perceived; the glissandos and vibratos remain unconscious and only add fullness and brilliance to the articulate melody; hence their habitual use by the commercial violinist as 'plastic' mannerisms. He increases the vibrato almost to a wobbling which sounds like an inaccurate shake, but his daring is rewarded by a maximum thickness of tone quality which a better violinist would disdain. A strengthening of inarticulate form elements achieves a proportionate increase in the plastic effect of the articulate melody.[1]

A glissando is, like the vibrato, a piece of inarticulate primitive melody, inarticulate in both rhythm and pitch. It slides up and down between articulate tone steps but not in a continuous 'smear'; that would sound like an accelerating tramway motor. It consists of imperceptible little jerks, of definite tone steps therefore, which may be small fractions of a half-tone and are not articulated into the musical scale. They too are little pieces of primitive melody interpolated between two articulate scale tones, inaudible to conscious perception, but just for this reason enriching the articulate tones in brilliance and fullness.

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[1] See for a dynamic theory of plastic feelings, based on the 'repression' of inarticulate depth perceptions, Chapter XV, particularly p. 234.

Both vibrato and glissando and all the other innumerable little inflexions inarticulate in rhythm and pitch make up the great violinist's technique. They are automatically produced like the 'technique' of a great painter. Anybody familiar with the woes of a young violinist knows his brooding about the secret of a master's technique. But as in visual art the inarticulate quality of a technique cannot be imitated by conscious effort.

It is the usual practice today to carry out aesthetic research in air-tight compartments, either dealing with forms of music or of visual art. No attempt is made to justify this regrettable division, and lately the Aesthetics of musical forms have separated formally by adopting the proud name of Musicology. This development stands in contrast to the general trend in science of ignoring the conventional frontiers between the different branches of science. It is the more gratifying, therefore, that our observations on surface gestalt and depth perception which we made first in the visual arts can be applied without a *tour de force* to music. But it would have been a strain for the reader to switch over continually between the two basic forms of art by adopting a synoptical method, particularly as a common terminology would be difficult. If we had kept to a common terminology we should have spoken of a differentiated melody, not of an articulate melody, or of differentiated tone steps and rhythm. This pedantry would have made our expressions cumbersome and obscure, without serving a useful purpose. Now that we are well advanced we may draw the parallels.

In music, the surface gestalt of visual arts is represented by the melody, it draws conscious attention to itself immediately and keeps it fixed; and in memory the melody represents the entire experience of a piece of music. There are accompanying voices too, little melodies in themselves, but they are not as pregnant and 'ear-catching' as the main melody and form only an indistinct background. They represent the competing form events of visual arts. We remember that the art student learns to watch form events like background negatives, superimposed abstract patterns, etc., and soon knows from experience that though they remain invisible, their good form matters in improving the surface gestalt.

The same holds good for the accompanying voices. Though they remain inaudible as competing melodies for the average listener, their melodic form matters a great deal. The amateur composer resembles the untrained draughtsman. Both are at first concerned only with the surface gestalt, i.e. the object form in painting, the melody in music. The would-be composer often believes it sufficient to invent the melody and add the accompaniment afterwards. In his inner ear he hears a heavenly melody. He rushes to the piano and notes down his inspiration. He succeeds in catching the melody and begins to realize that the heavenly sound depended on the accompaniment; so he pokes about on the piano to get the necessary chords together, and there he fails dismally. Only the very naïve music lover conceives music as melody plus accompaniment.

The music student learns in his first lesson that it does not suffice to write a melody and add a few chords below, but that the accompaniment really consists of several voices which form more or less continuous melodies in their own right; not quite so expressive as the main melody, but still little melodies. And indeed the more easily and smoothly the pupil can make these voices run under the surface of the main melody the rounder and fuller the harmonic sound of the whole. Instruction in music does the same as the art school. In both cases the pupil's attention is turned away from an exclusive concentration on a single surface gestalt and made to branch out to follow several competing form events unfolding at the same time. And the reward is exactly the same—the surface gestalt is enriched in gifts of grace and power. And in both cases the pupil is led to the particular technique of artistic perception by Bergson's recipe as he is made to follow several form events in a particular kind of diffuse attention, the nature of which we now know so well.

In visual arts the competing form events can grow to equal power with the surface gestalt and cause thereby the eye to 'wander'; so the accompanying melodies of music can grow into true polyphony—music where several melodies sound together all equally expressive and none strong enough to attract and fix conscious attention exclusively to itself. Such polyphony is either very old or very modern. The old polyphonic style died in the seventeenth century, incidentally in the century of enlightenment and modern rationality.[1] This modern rationality did no longer bear the ambiguity of the polyphonic style; it retained one single main melody as a surface gestalt and fused the others into a neutral harmonic background. Today, as a sign of decaying rationality, true polyphony emerges again, and with it an ambiguity of form which the lover of traditional art cannot easily bear. In modern visual art the ambiguity of forms makes the eye 'wander'; in polyphonic music a similar disagreeable effect is produced which indeed cannot be better described than as 'ear-wandering'.

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[1] See for the Greeks' aversion against the 'confusion' of polyphony and the medieval enjoyment of just that confusion, p. 90.

Take the great master works of the classical polyphonic style, J. S. Bach's last fugal works. The average listener who is used to one-melody music might be at ease at first as he knows that a single fugue-theme dominates the voices and is continuously repeated. He can follow in the beginning when the theme is intonated solemnly by each voice as it joins in; but as the fugue develops and the voices unite into the full polyphonic song, none of them more significant or expressive than the other, each equally likely to take up the theme at any time, then the single-melody-minded listener can never be sure where to turn his attention. While he still follows that voice in which he has just picked out the theme, he will often discover that yet another voice has already taken up the theme a few bars before and, according to the rules, he ought to have switched over his attention much earlier, and he might overlook the appearance of the theme in the less conspicuous middle voices altogether. Well-meaning but ill-guided performers might want to help him by hammering out the theme whenever and wherever it makes its appearance, but this practice—apart from its doubtful artistic merits—will only aggravate the disagreeable experience, i.e. the experience of 'ear-wandering'. His ear can never settle down on a little piece of unbroken melody without being torn away again too soon because another voice announces its right to claim attention by the intonation of the theme.

In order to enjoy polyphonic music a change of attitude is necessary. One has to experience the fugue-theme from the very beginning not as a melody but as the germ cell from which the intricate polyphonic structure of a fugue will grow; to follow the unfolding of this structure with a diffuse attention not concentrated on a single voice but on the structure as a whole; to feel how it gains in transparency and expands into infinite space (perhaps an example of an 'oceanic' feeling in art); only then will the listener feel the deep elation connected with polyphonic music which has to speak in several tongues instead of in one. The listener educated only in the harmonic style of music will feel some of this elation in those ecstatic finales of classical symphonies which suddenly break out into a fugato whose development carries the listener up to the final climax of the symphony.

It is strange that the old polyphonic style should appear to the modern listener stiff and ornamental and therefore unemotional. I will suggest later a new analytical approach to style analysis and show that the impression of style in old art often covers true gestalt-free form, so that we can no longer perceive gestalt-free form in old art and have to turn to modern art for an example. We explained the emergence of gestalt-free form in modern art as a symptom of our weakened rationality. But there have been previous periods of low rationality and great emotional stress. Such a time was the Gothic, which gave birth to medieval polyphony, and still more the archaic and primitive stages of any culture. But in the art of these cultures of low rationality there always prevails an impression of ornamental stylized stiffness which is in strange contrast to the emotional stress under which these works of art must have been created. If we overcome or rather analyse this stylized impression then we can uncover the gestalt-free form beneath.

We said that the gestalt-weak diffuse technique of perception was the artist's way of looking at the world. Still it is not enough for an artist to have the power of diffuse perception. An exercise in harmony, by which the pupil learns to follow several voices as they unfold simultaneously, is no more than a combination game according to certain rules. To solve neatly a chess problem or a problem in any other combination game gives similar aesthetic pleasure, but it is a game, not an artistic activity. The attraction which such combination games afford may be just the necessity for a diffuse attention as the player has to watch several possibilities at the same time.

An interesting borderline case between a combination game and artistic activity is the reading of a crime story. It is not a game as the reader is not really expected to work out the solution himself, neither is it an artistic activity. It appeals more by the skill of its construction than by its form. Its technique could be called one of deliberate ambiguity. The author never allows the clues to narrow down so as to point definitely to a single culprit; he keeps them as ambiguous and as disconnected as possible. As this chaotic material is mounting up the reader can hardly bear the tension of keeping it before his mind. He is only able to do so because he is promised that all will fall into an orderly and logical pattern in the end. I, not being a crime-story fan myself, am always surprised how little is necessary to achieve this last-minute logical satisfaction. A few odds and bits which have been carefully tucked away under a dazzling camouflage of insignificant details are triumphantly dragged to the surface and displayed as the logical fundament of the story. Still the fan feels that all the innumerable other dazzle-details are now logically justified. I think this illusion has another reason. The dazzle-details are justified as a necessary part of the technique of deliberate ambiguity.

It is no mean achievement to keep a story ambiguous so that several series of clues are kept running simultaneously as so many possible murder stories told in one. Here is something of a superimposition of several stories or a polyphony of plots. The reader can never concentrate on one single possible plot and his attention is constantly diverted from one possibility to the other, as in the eye- and ear-wandering of seeing and hearing. As in musical polyphony his attention does not constantly jump from one possibility to the other, but he follows the unfolding of the whole intentionally incoherent and ambiguous story in a state of diffuse attention with one or the other possibility dimly flickering and extinguishing again, but never attracting attention exclusively.

In the same way as this technique of presenting the story creates the illusion of cogent logic in the end, it appears to me also partly responsible for the breathless tension. The reader is held in a diffuse state of attention which he cannot keep up indefinitely. For this reason he has to push on to the end as quickly as possible and not because of his burning interest for the so often meagre solution. Such an interest is hardly compatible with the high intelligence of some crime-story fans. If for real enjoyment one is to be kept in a continuous state of diffuse attention (so different from the rational method of thinking) then we understand why crime stories act as an indispensable sleeping-draught for some of their readers. A diffuse state of attention is nearer to the sleeping state than to the sharply focused rational thinking. A real interest in the plot of cruelty and murder should cause a sleepless night.[1] The crime-story technique presents in fact a supreme example of the artistic technique of superimposition and ambiguity. Yet it is nearer to a puzzle game than to a real artistic experience.

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[1] In Chapter XVI, I will submit a possible reason why a plot of 'guilt unsolved' should be particularly able to stimulate our intellectual curiosity.

III

The Secondary Elaboration into Style and Ornament

IT is not the gestalt-free technique alone which constitutes art, but the participation of the depth mind which symbolizes itself in the gestalt-free technique. According to the psycho-analytical theory the dream, the joke, and also art are expressions of unconscious wishes or tendencies. All three—dream, joke, and art—use the gestalt-free technique peculiar to the depth mind. Freud discovered this technique first in the dream; then he analysed the technique of the joke and proved that its structure resembled the dream. I have tried to do the same for the work of art, by drawing to the surface its gestalt-free structure. What remains to be done is to prove that the gestalt-free structure expresses also the repressed wishes of the depth mind.

The proof is easy with modern art where the gestalt-free structure lies on the surface, but not so easy, if at all possible, with traditional art where the gestalt-free structure is confined to the altogether vague and inarticulate forms of artistic 'technique' and background forms. In modern art we find that the unconscious symbolism is frequenty sexual, a fact that will be distasteful to many. Later we will try to trace back the origin of aesthetic feeling to a primeval sexual crisis which might also be the origin of the sexual form play of the depth mind. It seems that the depth mind projects into any projection sexual forms. This happens also in dreams. Dream visions might be on the surface quite innocuous, but under this surface is hidden a pronounced sexual symbolism. To discover it one has to employ a method which was developed by Pfister.[1] Drawings made of actual dream visions can be treated like picture puzzles. If some details of the drawings are recombined in a new way, they reveal a hidden sexual symbolism.[2] The dreamer had perceived this symbolism unconsciously in his dream; and in making his drawings, was still guided unconsciously by his unconscious memory of the symbolism.

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[1] Freud, *The Interpretation of Dreams* (George Allen and Unwin, 1932), p. 338.

[2] This too goes to prove that in dreams, as in artistic vision, there are unconscious layers of perception which are not bound by the conscious surface gestalt.

Any perception of the exterior world might serve the depth mind to symbolize its hidden symbolism. The depth mind acts like the sick child in Goethe's *Erlkönig* who projects his growing fear of rape into the nightly landscape and infects with his fear his father, and also the reader, all the more readily because our own unconscious depth mind is always inclined to do the same. For the child with his still weak power of differentiation the real things can still merge easily with the products of his form phantasies. Our infantile depth mind uses the undifferentiated ambiguity of its technique in the same way to project its sexual form play into the perception of the surface mind. In modern art, in dream visions and, as we shall see presently, also in primitive art the unconscious form play becomes strong enough to influence the surface gestalt.

Some examples of primitive art look at first clumsy and stylized like so many other examples of primitive art. But as we look more closely we find that their distortion of realistic form need not be explained by stylization, but by the hidden sexual significance of some details. These details express in the first place these sexual forms and only in the second place do they contribute to the surface gestalt; hence the surface gestalt appears distorted and lacking in realism.

Ancestral sculptures from the Sepik River in New Guinea abound in phallic forms. An example is reproduced in L. Adam's Pelican Book on *Primitive Art* (illustration no. 15, first edition 1940).[1] Its elongated head already suggests its unconscious significance. But as so often in unconscious symbolism, the smaller details show it still more ostensibly (the nose and, perhaps, the soul bird on the upper lip).

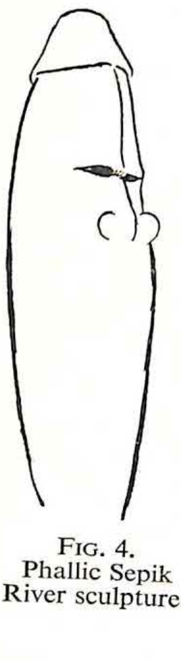

FIG. 4.
Phallic Sepik River sculpture.

That primitive art should thus resemble the dream in its structure is not surprising. In many other respects the primitive mind comes nearer to the infantile mind and to our own unconscious mind. The primitive artist abandons himself with less restraint to the unconscious form play than the civilized artist;

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[1] Omitted in the second edition.

his weaker rationality suffers the surface gestalt to be distorted under the pressure of the unconscious symbolism.

Our modern gestalt-free art is exactly the same phenomenon. The breakdown of rationality in our times allowed again the unconscious form play to come forward and disintegrate the surface gestalt. What is surprising is the totally different emotional experience in primitive and modern art. In our own art we experience the uninhibited break-through of the unconscious symbol play with an acute and almost painful emotion and perceive the destruction of good gestalt as an unaesthetic chaos. We should expect the same emotional experience in primitive art, but instead we experience the distortion of the surface gestalt as a decorative stylization, lifeless and stiff.

A more complete misunderstanding could scarcely be imagined. Its enormity suggests that it may be connected with the censorship of the superego which tries to safeguard our surface mind against intrusions from the depth mind. We cannot overlook the all too revealing distortions. But our mind can be kept from guessing the real cause by quickly suggesting another less dangerous reason: a wish to sacrifice a realistic representation in order to achieve aesthetic effects by stylization. We have met with another example where the gestalt-free structure in old art appeared stylized instead of emotional; musical polyphony allows a dominating main melody to be overwhelmed by other voices. Polyphony is experienced differently in modern and old music. In modern music, say in Hindemith's 'ludus tonalis', the loss of melody is distressing and the thinness of harmonic sound unaesthetic; the old polyphonic style, however, appears unemotional and highly decorative. Already in this connexion I suggested that the impression of style might have a special function, namely to cover up a break-through from the dangerous depth mind. In our own irrational art the break-through is still fresh and only there are we able to study the true gestalt-free structure of irrational art. We shall study in more detail the relationship between the superego and the unconscious form play in art form; and we shall then learn that the impression of stiff and lifeless stylization is the surest indication that the work of art contained originally a particularly uninhibited unconscious form play which only in our perception has crystallized into a dead and rigid style.

As we can no longer feel the emotional upheaval in primitive art, the evolution of primitive art into realistic civilized art is felt as a progress in emotional and vivid expression while in fact realistic art is more inhibited and calm (see p. 244).

The stronger rationality and inhibition of the civilized artist excludes the unconscious form play from any influence on the surface gestalt which has to follow a strictly realistic representation of real objects.[1] Only in form elements outside the surface gestalt, like background forms and the minute forms of 'technique', where conscious form control did not reach, the unconscious form play could still symbolize itself freely. There it remained in hiding until it broke out again triumphantly into the uninhibited chaos of modern automatic art.[2]

The forms of artistic technique are perhaps too inarticulate to be open to the 'picture-puzzle' method of analysis. Still, two points speak for its unconscious symbolic meaning: first, their totally inarticulate gestalt-free structure which testifies to their origin in the lower layers of the depth mind—we found that the unconscious always expressed itself in gestalt-free forms; secondly, the emotional power which is bound up with a great master's technique. A reproduction of a masterpiece only in the great lines of the surface gestalt and with the minute forms of technique left out is just an empty shell. The conscious imitator of a great work misses both, the chaotic inarticulate structure of technique and the emotional impact of the original. He fails because he reproduces by a conscious effort what the master had created unconsciously. As he copies the erratic brush work of the original, the gestalt process ruling his conscious form perception will inevitably straighten out and regularize what he sees; he will overlook the little gaps and vaguenesses as accidental and insignificant in which, however, the master's unconscious had symbolized itself most powerfully.

Only the emotional sterility of the copy will tell us that the unconscious has played little or no part in its creation. The imitator's style might be purer and cleaner; but it is purified also of the unconscious symbolism which expressed itself—as so often—in the seemingly accidental and unessential detail. We saw in musical polyphony and in primitive art that gestalt-free form created by depth perception is often experienced as its very opposite, as a rigid and ornamental style, and we suspected that the superego censoring the unconscious symbolism could be responsible for the misleading impression of style. It might well be that the style imitator who projects cleaner and more aesthetic style into the original masterpiece is led by his superego to perceive style where there is in fact chaotic gestalt-free form.

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[1] The form-play is '*reified*', i.e. made to represent real things of the external world. I shall deal with this secondary 'reification' in Part II of this book.

[2] See for the breakdown of the surface gestalt, Chapter XI.

III. THE SECONDARY STYLE ELABORATION

Considering the difficulties of a direct interpretation of technique, a self-analysis which I made accidentally while sketching the portrait of a friend might be of interest. My friend, a psycho-analyst, had a friendly ever-smiling face and wore glasses which hid his eyes. It tempted me to give his eyes the penetrating expression befitting his analytical profession. I sketched the iris behind the eye-glass with three vague strokes: roughly a vertical stroke—a dot—and a vertical stroke again. I was pleased to see that they were sufficient to give the eye the desired penetrating quality. I repeated the 'stroke-dot-stroke' motif leisurely in the smiling wrinkles of the mouth and the folds of his coat and the stare of the eye seemed to gain in a certain maliciousness (background forms always reinforce similar forms contained in the figure, and the eye is perhaps the form on which we focus most frequently in judging the expression of a face). In shaping the sweeping folds of the coat I remembered that the head of the Medusa who could petrify the onlooker had a sexual symbolic meaning and pondered whether the stroke-dot-stroke motif in all its simplicity and vagueness did not derive its emotional quality (the 'petrifying' stare) from the same unconscious symbolism.

The reaction of my friend confirmed my auto-analysis. If the sketch were almost a 'family portrait' before, it was so no longer; and he startled me somewhat by saying half jokingly, half in earnest, that he objected particularly to some background forms as they 'lacked respect'. These background forms were the last variation of the stroke-dot-stroke motif which I had added after I had already guessed the motif's unconscious meaning. They were vague enough to represent nothing but shading. But I was naïve no more and my sensitive friend must have felt that.

Surface perception is a particularly unsuitable instrument with which to perceive symbolic forms because the symbolism likes to hide itself in accidental and insignificant-looking flaws. The gap-filling and bump-erasing function of surface perception is likely to suppress accidental flaws and with them the hidden symbolism, very much to the delight of the superego which safeguards the surface mind from the repressed wishes of the unconscious. The hand of the superego reaches further. It was already responsible for the disguise of the unconscious symbolism as inconspicuous and insignificant-looking details. The disguise must be heavier for the civilized mind than for the primitive. Hence the more ostensible symbolism in primitive art. The gestalt process of the surface mind (belonging to the technique of the ego) and the superego work hand in hand. One could explain the decadence of great art into smooth style just as well by the polishing action of the gestalt perception as by the censorship of the superego.

In fact, the joint action of both is responsible. Freud discovered such a joint action in the 'secondary elaboration' of dream memories by the waking surface mind. When we awake and try to recollect a past dream we do not remember it in its initial vagueness and incoherence characteristic of depth perception but in a more compact and clearer form, and incidentally those vaguenesses and incoherent details which are most readily polished off contain the most important symbolism. As our mind lingers on the dream memory it gains in clarity and compactness, and those details which drop out first are sure to be the most important; Freud had only to observe which details would be suppressed first in order to know where he had to start his analysis. Obviously the gestalt process of the surface mind is not a blind instrument but directed in its action by the discerning superego. This is the most important modification of the Gestalt Theory by psycho-analysis as far as the action of the surface mind is concerned.[1] Not that gestalt perception polishes off the detail which, objectively, is either the least coherent or obstructs the formation of a 'good' (i.e. of an aesthetically pleasing) gestalt, but only that which is dangerous because of its unconscious symbolism.[2]

The unconscious symbolism of art form calls forth a reaction of the superego on a far grander scale than the secondary dream elaboration, as though a great masterpiece had been a dream of the artist which we, the public, perceive with our waking perception. Not only the style imitator, but we all project into the masterworks more simplicity and style than the artist himself had put into them and so misunderstand its real message. The unfortunate style imitator only reproduces on the canvas what we others only project into the works of art.

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[1] Freud, *The Interpretation of Dreams* (George Allen and Unwin, 1932), p. 462.

[2] Later we shall deal with the aesthetic feeling and try to show that the aesthetic feeling is not really determined by objective properties of a good gestalt but, like the gestalt process, by its function to serve in the struggle against depth perception. Our analysis of plastic mannerisms in the previous chapter showed that the surface gestalt attained 'better' gestalt in strict proportion to the danger threatening from depth perception—as though the aesthetic feelings had to help the surface gestalt to maintain itself against depth perception. Thus not only the gestalt process but also the aesthetic feelings which accompany it would be directed by the superego.

III. THE SECONDARY STYLE ELABORATION

A new great period style is never recognized as such while it slowly develops. To the contemporaries the cultural output of their period appears as a chaotic expression of so many contradictory and conflicting personalities. Out of such dazzling diversity the modern Impressionist style was born. But once a period becomes history, the diversities seem to lose significance and common traits hitherto unsuspected become more and more emphasized in the perception. In the end, the whole creative output of a period is no longer the conflicting expression of individualities but the more or less impersonal example of a uniform 'period' style.

This slow emergence of uniformity in place of diversity is far and away the most impressive example of the action of the gestalt process. It steam-rolls and levels down into dead uniformity all differences between the individuals of a period, all differences even between good and bad craftsmanship into one single all-equalizing impression of style. This impression of style is all the stronger, the wilder and the more uninhibited a cultural period was, so that all primitive and archaic cultures have produced stronger styles than periods of civilized rationality. The Greek temple was created not in the rational Periclean time (when Phidias sculptured his realistic statues) but in the preceding archaic period which filled its temples with rigid stylized images of Apollo bearing the mystic archaic smile on their lips. Western civilization owes its strongest style—the Gothic—not to the enlightened Renaissance in Italy but to the religious frenzy of France which created at the same time and at the same place the polyphony of Western music. A sensitive friend told me that he had made it his special hobby to learn how to distinguish between really good Gothic form and indifferent or bad form; it required a rigorous training of his form sense to overcome the overpowering impression of the Gothic style and to discern underneath the individual craftsmanship. Surely, the great Gothic artisans themselves had no such difficulty in judging their own and their fellows' work.

This truly grandiose reaction by the mass-superego is made necessary by the more dangerous nature of symbolic art form. A dream memory is easily forgotten, but in a work of art the unconscious symbolism stands permanently embodied. We cannot forget it or destroy it there; so our own perception changes; and it changes all the more drastically, the more dangerous the unconscious form play had been. Then a great style is born.

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To the primitive artist his own work must appear fearfully alive like nightmares which a child may see in his phantasies. It is more related to our own surrealist art which had to abandon civilized realism to express the anguish and cruelty of our tormented age.[1] The decay of rationality in our own time has made us more sensitive to the turmoil of ecstasy and fear which the primitive man feels in his dancing, his religious feasts, and in his art. Still, the civilized spectator cannot wholly free himself from the impression of rigid style and dead ornament. We call primitive art stylized thereby using a term which we apply in the first place to a sophisticated art which purposely drops realism to achieve somewhat tame ornamental effects. This extreme transmutation can now be explained by a particularly vehement secondary elaboration changing a chaotic uninhibited art into the strongest and severest style effects of which we know in the world of arts. Still, even in our conscious experience there is a definite difference between the stylization of primitive art and the tame stylizing effects of a modern decorative art. The modern decorative art appears calm and without intrinsic tensions, while the primitive stylization is rigid and taut with a convulsive contortion. The stylized surface gestalt had to harden in order not to crack under the continued pressure exerted by the repressed wishes.

A careful scrutiny can reconstruct the experience of gestalt-free form now overgrown by the powerful impression of style. For instance, the archaic Celtic 'Flecht-Ornamente' (braided ornaments) show intertwining almost serpent-like animal forms which seem nowhere to begin or to end.[2] They obviously lack the compactness or simplicity of a pregnant gestalt. Nevertheless, the distressing effect of gestalt-free perception as we know it from modern art does not occur here. We can easily imagine a modern automatic artist painting serpent-like intertwining animals inseparably fused into each other as a result of the fluid vision into which the modern artist dissolves the sharply defined real things of the exterior world. The effect on the average spectator is dazzling. He will try—as is his wont in traditional paintings—to sort out the individual animals until his eyes become blurred and strained. Why does he not do the same with the archaic braided ornaments? Just because the modern painting is a real 'picture' where he expects to find the real and well-defined object shapes, the old archaic art has now receded into being only an ornament and the endless intertwining of gestalt-free shapes no longer worries him. The so-called ornament, however, used to be a picture just as much as the modern painting and was meant to represent the fluid visions of an archaic artist. In this case the transmutation into a mere stylized ornament prevents our perception from noticing its gestalt-free structure.

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[1] See for the dynamics in the growth and decay of European realism, Chapter XII.

[2] See Plate III.

But sometimes the original gestalt-free vision is really obliterated by the projection of a secondary gestalt into it so that we can no longer perceive its real gestalt-free structure. This happens to superimposition which is so characteristic of gestalt-free perception.

Superimposition can often be transformed into a so-called 'condensation'. Condensations occur quite freely in dreams side by side with genuine superimposed vision; they are queer-looking mixtures composed of odd parts taken from different objects, such as the apparition of a winged angel composed of bird and human forms. In the dream-like surrealist art we find condensations between different objects such as human limbs growing from pieces of furniture. Or in primitive art we find in totem poles human figures curiously grown together into freak forms. Condensation, like genuine superimposed vision, seems to be based on the undifferentiated vision of the child who does not as yet fully differentiate between objects which would appear quite distinct and totally different to the adult. But while genuine superimposed vision represents a truly undifferentiated vision as it contains several adult-things in their entirety fused into one single fluid and vague vision, a condensation selects only a few odd sections from the several objects and composes them into a new freak thing, no longer fluid and vague but crudely clear; a nonsensical freak, it is true, but in its formal structure perfect gestalt, well defined and compact and easily visualized in a fully awakened state of mind. One might say—superimposed vision is irrational in structure, but not necessarily irrational in content, while a condensation is rational in its structure, but irrational in its content.[1]

We demonstrated the impossibility of superimposed vision in the waking state by the example of two superimposed photographs. Provided that they did not fuse into a trick photograph they could not be viewed simultaneously. Now a condensation is like a trick photograph which fuses several incompatible images into one single freak shape.

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[1] A condensation is really already a secondary gestalt articulation of an originally gestalt-free vision. Nothing has confused me more in my depth-psychological analysis of art form than Freud's assertion that a condensation was a typical structure of the unconscious form processes; see p. 113.

The result is queer and nonsensical, but without the dazzling ambiguity and fluidity of superimposed vision.

Thus the civilized spectator views the fluid visions of the primitive artist as though they were freaks. These human figures inextricably fused together as they squat on each other in primitive totem poles, are they really crude freaks, multiple Siamese twins? We have to credit the primitive artist with the undifferentiated vision of the child where the sharply defined forms of the external world lose their definite boundaries and intermingle into diffuse and dream-like apparitions. Out of such an undifferentiated vision the primitive artist has, in all probability, created the human shapes fused into the totem poles. A process of secondary elaboration of gestalt-free into gestalt-bound form has 'condensed' the undifferentiated vision into the well-defined but crude freaks which the civilized spectator now perceives.[1]

The primitive visions of human shapes squatting on each other's heads must have some demoniacal meaning. It recurs in Milton's famous description of Satan: 'His stature reached the sky, and on his crest sate HORROR plum'd. . . .' Sir Herbert Read (in his essay 'Obscurity in Poetry') quotes two comments on this passage to show the different ways in which such a poetical vision is re-experienced by its readers. In fact, one of the two ways is a genuine superimposed vision, the other a condensation. The first commentator, Dr Newton, condenses Milton's vision of Horror squatting on Satan's helmet into a sharp and crude shape and finds the result—understandably enough—'extravagant' . . . 'Horror is personified and made the plume of his helmet. . . .'

The second commentator, Warton, criticizes this crude condensation. He says: 'We have no precise or determinate conception of what Milton means. And we detract from the sublimity of the passage in endeavouring to explain it, and to give it a distinct signification. Here is a nameless terrible grace, resulting from a mixture of ideas, and a confusion of imagery.'

If we return to the imagery of a primitive totem pole we must deplore the fact that our style perception has forced us to condense the fluid vision of the primitive artist into extravagant absurdity so that our eyes can never see their demoniacal, terrible grace.

Still, not all branches of primitive art have lost their wild and irritating life. We have spoken already of the continuous glissandos and vibratos of primitive melody. Their oscillating movement, like the oscillating body movements of primitive dancers, is still chaotic and full of dazzling life.[1] There is nothing of stiff and ornamental style. Unlike the visual arts our own civilized music has retained primitive forms throughout the ages not only in the glissandos and vibratos, but also in many other melodic details. And here the secondary elaboration into stylized ornament has taken place. What we are accustomed to call melodic 'ornaments' are obvious relics from archaic times; their origin can be traced back to the very dawn of Western music.

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[1] See Plate V.

But, so far as I know, it has struck nobody that these archaic melodic details should serve now as colouring decorations to modern music; so much have we got used to the paradoxical fact that all archaic art must be necessarily decorative and ornamental. The melodic ornaments like shake, arpeggio, grace note, mordent are only partly inarticulate when compared with the fully inarticulate glissando or vibrato. The glissando and vibrato are inarticulate both in pitch and rhythm, the ornaments are articulate in pitch but inarticulate in rhythm; if the oscillatory movement of a vibrato is gradually increased it will approach a badly executed shake and at last be transformed into a real shake; similarly if a glissando is articulated in scale steps it becomes an arpeggio or only a single grace note. It is not always fully realized by musicians that the essence of such ornaments is their free, i.e. inarticulate rhythm. Were it otherwise, the composer would have noted their rhythm, e.g. he would have noted the grace note as an exact semi-quaver, etc. As it is, he left their rhythmical measurement to the performer who has to rely in their execution on his unconscious form sense. Which musician would care to know how often in the bar the shake swings up and down and whether his grace note lasted longer or shorter than a semi-quaver? The attraction of a sustained shake sounding continually over a bass melody is its complete rhythmical independence from the main melody and its peculiar 'ornamental' colour would immediately disappear if its rhythm were related in any way to the rhythm of the melody.

The ornaments are not fully articulated into the melody. Without them, the melody would still retain its identity, and would only sound poorer. Just like the altogether inarticulate glissandos and vibratos the ornaments serve to increase the plastic and aesthetic appearance of the articulate melody. Hence we call them 'ornaments'. As such their use can be traced back to the very beginning of articulate Western music; they are in fact authentic remnants of prehistoric primitive music. But to us these ornaments have become part of a richly ornamented style, either graceful as in the coloraturas of Zerbinetta in R. Strauss's opera *Ariadne auf Naxos*, or pompous as in a bass aria in an oratorio by Handel. It will be observed that style effects in general tend to fall in the two categories of aesthetic feelings: the sublime and the graceful. A possible reason for this will be suggested later. In music as in visual arts, the secondary elaboration succeeds in transforming chaotic primitive form into a rigid and ornamental style. (See for the function of the ornament in the musical articulation process, p. 118.)

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[1] See for the compulsive laughter in perceiving primitive music and dancing, p. 105.

Another example of extreme secondary elaboration into style is the art of the primitive in our own civilized world. I refer to the woman. Less inhibited than the man she introduces little-disguised sexual symbolism into her clothing, particularly into her hats. Her intention is to excite rather than to be aesthetic. But the reaction of the civilized superego is swift and energetic. The new fashion soon loses its exciting and at the same time repulsive quality; it slips out of fashion within a year or so and in a few decades it has become something totally different: an historical costume. As such it displays richer decorative effects than any other art and no public procession is complete without it. What a change indeed! The exciting quality of a new fashion consists partly in its revealing emphasis on a certain part of the body; there is a certain indecency in this, deeply felt by the conservative opponents of a new fashion; as an historical costume it seems to hang awkwardly on the body without regard to the natural lines; perhaps another example of the rigidity and stiffness adhering to all strong style effects. The crinoline might appear a most complete covering of the female body. But now that it comes back into fashion we might do well to realize that it symbolizes, and therefore emphasizes, the womb. Wilhelm Busch, the German humorist, uses in his *Adelchens Spaziergang* the extreme contrast between the crinoline as a chaste old-fashioned garment and its destroyed unconscious symbolism. Adelchen, an old maid, goes for a walk in her crinoline. A he-goat (was he a Dionysian satyr?) is attracted by the voluminous garment, lowers his horns, and charges into it. The lady faints and the he-goat carries off the collapsed frame of the crinoline. This outrage on the chastity of the lady is carried to its logical conclusion. A clever stork finds the abandoned frame of the crinoline and makes it into a nest in which he rears his little stork children. The symbolism is rather stark, but perhaps only so because the original sexual meaning of the crinoline shape has been so utterly obscured by its transmutation into an historical costume. The strong comical effect results from the contrast between the conscious and unconscious meaning of the story.

The irrational phases of our civilized culture cannot quite equal the stylistic effects of primitive art. But we noted that the strongest styles invariably arose in archaic periods of our culture. There seems to be a *strict proportion* between the strength of the original unconscious form play, its disintegration of the surface gestalt and the subsequent transformation into style effects. The superego mobilizes the style process only to the extent that is necessary to keep the unconscious form play in check.

Our dynamic interpretation of style effects has been almost entirely anticipated by the youthful Nietzsche in his famous book, *Der Ursprung der Tragoedie aus dem Geiste der Musik* ('The Origin of the Tragedy from the Spirit of Music'), which still forms the standard work of modern Aesthetics in spite of its visionary and vehement discourse. His Dionysian art principle, both chaotic and destructive, corresponds to the unconscious form play of the depth mind; his Apollinian form principle which moulds the Dionysian break-through into the images of dreams and art corresponds to the gestalt function which articulates the chaotic break-through of the depth mind. Nietzsche formed his theory on the example of Greek art. He felt that our modern impression of Greek art was inconsistent with the spirit of ancient Greece. Under the surface of classical beauty, of sublimity and grace lie covered the barbarian ecstasies of archaic Greece. The Greek tragedy grew from the Dionysian mysteries as an expression of Dionysian fear and anguish, of cravings for self-destruction and mystic union with the Universe (the oceanic feeling according to Freud). For Nietzsche the Chorus of the tragedy is not a detached observer who accompanies the happenings on the stage with his calm and balanced commentary, but a dithyrambic hymn expressing the Dionysian emotions. But in the course of many generations the Greek works of art lost their acute emotion and pain and in our eyes have been transfigured into the sublimity and grace of 'classical beauty'.

Nietzsche interprets this transfiguration as the outcome of the struggle between the two basic form principles of dream and art: Dionysos (Thanatos according to Freud) and Apollo (Eros). Dionysos is the chaotic life force itself which tries to break up individual existence, Apollo the form principle of differentiation (the 'principium individuationis' according to Schopenhauer) which safeguards individual existence by moulding the Dionysian chaos into order and beauty. Apollo is the Dream God who uses the imagery of dreams to tame the destructive break-through of Dionysos. Apollo and Dionysos in this sense are the structural principles of differentiation and of chaos underlying all manifestations of life. (We will revert to the philosophical aspect of this form dualism.)

The interplay between the two form principles decides how far a work of art is Dionysian or Apollinian at the outset. The revolutionary type of artist is Dionysian, the conservative type Apollinian. But Nietzsche assumes—and this is of paramount importance—that the interplay between the forces does not end with the creation of the work of art; it continues in the perception of the public where Apollo tries to transfigure into beauty what is still left of the Dionysian upheaval.[1] This is the secondary elaboration into style. A later generation will preceive all the more the Apollinian effects of order and beauty the more there has been chaos and disorder in the work of art. Nietzsche predicts: 'Only so much of that fundament of existence, of the Dionysian "Urgrund" of the world is allowed to enter the consciousness of the human individual as can be overcome by that Apollinian force of transfiguration so that these two forces of art creation must unfold their powers in strict mutual proportion, according to the eternal law of justice. Where the Dionysian forces rise with such vehemence as we experience today there must have already descended among us Apollo, hidden in a cloud, whose richest effects of beauty only a later generation will behold.'

Nietzsche predicts that the art of today, just because the Dionysian forces have made it chaotic and painful, is destined to produce in the eyes of a future generation the richest effect of beauty, according to a 'law of *strict proportion*' between the original Dionysian break-through and the secondary Apollinian reaction.

Today, our modern art still shows the acute emotion of self-destruction and chaos and the almost total lack of aesthetic pleasure. But already we see unmistakable signs of the order to come, of that future great style which is being born under the stress and the irrationality of our new barbarian age. There is in our architecture a preponderance of the horizontal line expressed in endless ribbons of balconies and low windows, flat roofs and sweeping terraces, comparable only to the preponderance of the vertical line in the Gothic style; here is also the form law of the streamline which—with or without conscious intention on our part—influences any curve we try to draw. No form principle of similar strength has arisen in Western art since the Middle Ages.

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[1] See for this supra-individual aspect of the creative process shared out between the artist and his public in Chapter I, p. 13, and later on p. 74.

The sterile nineteenth century was style-crazy but could not achieve its burning ambition to equal the old great styles by a new style of its own. Styles are born without intention and sometimes, as in the case of modern architecture, against the intention of their creators. The style formation is particularly strong in architecture, so much so, that the word style calls up in the first place the great building styles of the Gothic, Renaissance, Baroque, etc. We should expect by applying Nietzsche's 'law of *strict proportion*' that the strong style formation in architecture was the result of a particularly dangerous unconscious form play. Indeed we know from dream analysis that the basic forms of architecture, few in number, like tower and dome, balcony and niche, door and staircase, represent symbolically various parts of the human body. Architecture being an abstract art could not reify this symbolism by a realistic surface gestalt representing real objects, so it developed particularly strong style effects. The craving for style in the nineteenth century was only a reaction against the rising forces of Dionysos. The final break-through in modern architecture did away with the style surface and exposed the age-old symbols of tower, dome, etc. without stylistic embellishments. The shock to see this naked symbolism was commensurate to the offence. In the beginning of our century the new bare buildings were decried as 'crazy' much in the same way as the husband calls crazy the ultramodern hat of his wife displaying the newest symbolic forms; he forgets thereby that women's hats never claim to be rational, e.g. a practical protection against the weather. The rationality of the more inhibited spectator is insulted by the open display of unconscious symbolism. It did not matter, therefore, that the modern buildings with their bare symbolism were in fact more practical and rational than nineteenth-century architecture, which sacrificed all comfort and serviceability to a façade in good style.[1] But already after only a few decades the Apollinian reaction has begun, covering the bare buildings with the new style of the horizontal and the streamline whose 'richest effects of beauty only a later generation will behold'.

May we predict that the reckless symbolism of modern automatic painting will crystallize in the eyes of a future generation into a calm and decorative ornament by the same transmutation which made the endlessly intertwining animals of Celtic sculptures congeal into ornamental rigidity? Then its lack of realism will be attributed to the deliberate stylization that we attribute to the primitive art of all times.

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[1] See Functionalism as the result of a secondary 'reification' process, p. 244.

The artist can never achieve his real intention. The Apollinian artist fails who tries to equal the great masterworks by preserving a tradition of beauty and style; in the eyes of a later generation he is only an epigone; the revolutionary Dionysian artist wants to destroy the narrow restrictions of style and measured beauty, but as his work is transfigured into beauty and harmony it serves again as a standard to restrict the freedom of future artists, Dionysian and revolutionary like himself.

We have dealt mainly with the perception process and neglected somewhat the emotional experience which accompanies our perception of art. Actually, the dynamic changes in perception are inseparably connected with dynamic changes in the emotional experience. According to Nietzsche, Apollo shapes the Dionysian chaos into order, but he also offers aesthetic pleasure for the Dionysian pains of self-destruction. Indeed the 'law of *strict proportion*' applies in the first instance to the change in emotional experience; the more acute the Dionysian pain of creation, the greater the aesthetic pleasures of the public. What we call style is more than good gestalt (though the concept of 'good' gestalt implies an aesthetic element). Style is good gestalt plus a very marked aesthetic experience of ornament.

We have to accustom ourselves to the thought that the emotional experience in art is not dependent on the structure of the external object of art but is determined by the struggle between unconscious form play and the reaction of the superego.[1] We have already observed in connexion with plastic mannerisms that the increase in aesthetic pleasure was not dependent on a real improvement in the gestalt properties of the surface gestalt, but quite on the contrary, the plastic and aesthetic impression increased the more the surface gestalt was disintegrated by the competing form events. The more the competing form events like abstract superimposed patterns, the plastic shape of the contour, the glissandos and vibratos threatened to overgrow the surface gestalt the more it seemed to gain in plastic and pregnant form, in other words, in properties of a 'good' gestalt; we inferred that the aesthetic and plastic feelings served the superego in maintaining the surface perception against the pressure exerted by the unconscious perception. The struggle between surface and depth perception is really a struggle for the full energy charge. Freud introduced the concept of a fixed amount of mental energy which is shifted between the different layers of the mind.[1] What depth perception gains in energy is lost to surface perception and vice versa. The greatest switches of energy occur in falling asleep and in awakening. The act of artistic creation too entails a withdrawal of energy from the surface mind into the deeper layers which in the case of automatic art drains the surface mind of its energy charge altogether. The amount of energy thus liberated is employed in the unconscious automatic form play, and released in the Dionysian emotions.

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[1] We have to overcome the 'externality illusion' which projects the origin of the aesthetic feeling from the internal world of the mind into the external physical world, see pp. 80, 117, 221 and in Chapter XVI.

The secondary elaboration process helps the surface mind to win back the lost energy charge, and the energy charge is now used in aesthetic pleasure. The 'law of *strict proportion*' between Dionysian and Apollinian emotions is understandable if we realize that it is the same amount of energy which is first used in depth perception for the release of Dionysian emotions and then used in the surface mind for the formation of aesthetic enjoyment.

The aesthetic pleasure serves to keep attention fixed on the surface gestalt by appealing to the all-powerful pleasure principle. Without it one could not explain the permanent success of the secondary elaboration into style. In spite of our conscious style perception the unconscious symbolic forms are not destroyed; they are still there open to the eye and the repressed infantile wishes still respond to them, though feebly, drained as they are of their former energy charge. But could not an external situation arise which would again reinforce the repressed wishes so they could again attract the old energy charge to themselves and experience the Dionysian emotions? They had once succeeded in the act of artistic creation; what happened once could happen again, particularly as the work of art actually embodies the dangerous symbolic form play. According to Freud our mind is ruled by the pleasure principle. The pleasure offered by art in the first place is rare; it offers unconscious gratification to the repressed wishes of our depth mind. The painful Dionysian emotion belongs only to the surface mind; it is an outcome of the enormous pressure which the unconscious wishes exert against the censoring forces of the superego.[2] The secondary elaboration of the symbol play into style means a considerable loss in pleasure and could therefore not be tolerated from the point of view of the pleasure principle. The aesthetic pleasure accompanying the style formation serves to make up the loss in unconscious gratification, and thus it makes the success of the secondary elaboration permanent; the pressure of the unconscious wishes is of no avail and the energy charge remains fixed in the surface mind secured by a rich experience of beauty, all the richer the stronger the work of art appeals to the repressed wishes.[1]

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[1] *Wit and its Relation to the Unconscious* (T. Fisher Unwin, 1916), p. 227.

[2] Rank, O., *Der Künstler*, *Imago-Bücher*, I, 72.

Our dynamical concept of aesthetic pleasure is confirmed by the fact that the secondary elaboration of dreams is *not* accompanied by a change in the aesthetic experience. Strangely enough, dreams in themselves can evoke intense aesthetic feelings; Freud quotes an example of a beautiful dream which in its objective characteristics is in no way more beautiful than other dreams.[2] It may well be that a shifting of energy into the surface mind occurred in the dreaming state and called forth the feelings of beauty. To prove this is beyond my resources and intentions. Enough that dreams in themselves are bare of objective reasons for beauty. As products chiefly of the depth mind they possess the typical 'bad' gestalt properties of vagueness and incoherence. They are open to considerable improvement and the secondary dream elaboration often clears up quite thoroughly among the gaps and impurities. Still this transformation into considerably better gestalt is not rewarded by the rich effects of beauty reserved for the secondary elaboration of gestalt-free art.

If we assume that aesthetic feelings have the function of securing a shifting of energy from the depth mind to the surface mind the lack of aesthetic pleasure in the secondary dream elaboration is fully explained. The secondary dream elaboration differs from secondary style elaboration just in the decisive point that it does *not* call forth a shifting of energy from the depth mind into the surface mind. That switch-over had already been achieved in the act of awakening. There is no further danger that the memory of a dream might again drain the mental energy from the surface into the depth of the mind. The secondary dream elaboration is the *consequence* of a shifting of energy, not its *cause*.

Another, perhaps even more significant, difference between secondary dream and style elaboration is the permanency of the style elaboration. Once the style has covered the wild form play of art never again can the human eye see its full effects, neither this generation, nor future generations. The secondary dream elaboration is ephemeral in the literal sense of the word. Night after night the same strongly symbolic dream may occur again, however successful the secondary elaboration of the dream memory has been, while the day lasted, in carefully polishing off all traces of dangerous symbolism. It appears possible that it is just the aesthetic pleasure which gives that astounding permanency to the secondary elaboration into style so that not only the single individual but all subsequent generations will perceive the style instead of the gestalt-free symbol play once the style formation is achieved. The individual of the later generation has not to run through the whole development of style; he has not perceived the wild symbol play at first and transmuted it himself into style. No! A great style emerges in a mass-psychological process spanning generations; the next generation takes up the thread where the previous one has left off. So primitive art forms might have become ornamental for all time as a legacy from the prehistoric era when our own culture emerged from its primitive stage. To secure this progress the art forms of the previous primitive stage were covered for ever under the surface of style.

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[1] We shall deal with the aesthetic feeling as accompanying any articulation process more fully in the next chapter.

[2] Freud, *The Interpretation of Dreams* (1932), p. 330.

Once we accept the existence of a legacy in aesthetic feelings which we have inherited from previous, even prehistoric, generations we are able to answer an objection which could be raised against the dynamical concept of aesthetic feelings. It could be argued that the aesthetic feelings in the secondary elaboration into style or in plastic mannerisms might be determined by their function of securing the surface perception, but there were innumerable other cases of aesthetic experience where this function could not be proved. Some objects of nature and geometrical figures were beautiful without concealing an unconscious form play. When we accept the inheritance of aesthetic experience it is obvious that in the course of generations a very great number of aesthetic shapes must accumulate which have become independent of their original objects and which kept their aesthetic effect on the ground that they were once used to cover the unconscious form play. All that today is beautiful or style in the surface gestalt owes its existence to a secondary elaboration which once had to transform gestalt-free depth perception into rational surface perception (see p. 221).

The most serious objection against the inheritance of aesthetic experiences comes from the current biological theory which excludes the inheritance of acquired faculties. It must comfort us to know that Freud had to contradict with great hesitation the same biological theory when he analysed the growth of religious beliefs in his last work on monotheism. In the development of a religion, we have also a mass-psychological process spanning generations. Freud explained the development of monotheism as a continuous reaction formation against prehistoric memories of mankind. A memory of savage deeds and urges is handed on unconsciously from generation to generation; Freud sees in this inheritance of a memory a contradiction to the current biological theory.[1] It is not too surprising that the analysis of artistic development should necessitate the same contradiction. After all, religious and artistic development are only parts of the greater cultural development which as a whole is regarded by Freud as a reaction formation to prehistoric experiences connected with the primeval murder of the father.

The inheritance of aesthetic experiences might have its origin in an even earlier stage of human history, which I may be allowed to reconstruct tentatively. Freud[2] assumes that the aesthetic feeling arose from sexual excitation by the sight of the mate; the exciting effect was first confined to the sight of the genitals but was later extended to a lesser degree to the sight of other parts of the body. The aesthetic effect though derived from sexual excitement does not adhere to its original centre; the genitals, while arousing the maximum excitement, could scarcely be called beautiful. According to our dynamical theory the aesthetic feeling could be formed only to destroy another Dionysian emotion: in this case the sexual excitement by the sight of the mate. The paradox that the genitals arouse the maximum excitement but the minimum of aesthetic pleasure is at once explained. The genitals retained the maximum exciting faculty because they did not form aesthetic feelings, while the other non-genital parts of the body have reduced exciting faculty because they did in fact form aesthetic feelings.

The question arises why the faculty to excite was extended to non-genital parts of the body only to be partly converted into aesthetic pleasure. The adoption of an erect gait by the human race must have created a very severe sexual crisis; the female genitals disappeared from sight and with them the chief source of excitation leading to the sexual act; other now more visible parts of the female body like the breasts had to take over the function to attract the male by their sight. At first the non-genital parts of the body must have exercised the full maximum of excitation previously held by the genitals. This was dangerous as it might have created a total aberration of the sexual urge from the genitals to the new source of excitement; that this is possible is proved by the perversions of fetishism.[1] The emergence of aesthetic enjoyment prevented this fatal turn of events. By partly destroying the transferred sexual excitement and converting it into beauty it reserved the maximum excitement to the ultimate perception of the genitals. This distribution of aesthetic pleasure and sexual emotion became part of the inherited constitution of mankind, and so represents the first example of an inherited aesthetic experience.

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[1] It was put to me that just this part of Freud's theories of cultural evolution has met with some doubt. The continuity in cultural evolution which makes one generation continue where the previous one left off could be interpreted also in another way. It is the distinctive feature of any mass-psychological process that it is independent from the individual mind and therefore produces phenomena which endure beyond the life-span of a single individual. See also p. 268.

[2] 'Drei Abhandlungen zur Sexualtheorie', *Gesammelte Schriften*, V, 29.

In later stages of human development the aesthetic feeling had to differentiate other types of undifferentiated perceptions.[2] Still the original function of aesthetic pleasure of counteracting sexual excitement by vision is still wide enough. The analysis of dreams and art shows that depth perception projects sexual forms into any act of perception. There may have been in prehistoric times a stage when the tormented sexual desire, deprived of its original object by the erect gait, would have strayed beyond the limits of the female body to endow any visual form with genital quality; our unconscious mind retained this 'pan-genital' form play as one might call it. As women began to clothe their bodies the sexual form play was easily transferred to the new shapes of the clothes. It might well be that a principal reason for the invention of female clothing was to offer the pan-genital desire a new object. As the transformation of Dionysian excitement into beauty went on there might have been a danger that the body became too beautiful and too little exciting. It suffices to cover any part of the body, even the face (as is the custom with Oriental women), to endow it again with an increased power to excite. By inventing clothes women transferred the power to excite to their clothes. These could be conveniently cast off and replaced by a new fashion when the Apollinian process had made them too beautiful. The body itself remained withdrawn from the transformation process. The rapidity with which women's fashions lose their attraction and have to be replaced shows how the primeval struggle between pan-genital vision and aesthetic reaction is still dangerously alive.

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[1] This idea occurred to me when reading an unpublished manuscript in German by H. Natanson on the 'Steppenflucht' which deals extensively with other consequences following the adoption of an erect human gait.

[2] See for the relation between the aesthetic feeling and the gestalt differentiation of perception the beginning of the next chapter and pp. 165, 218.

Clothing might have warded off another serious danger threatening from the pan-genital urge. We see that races who did not adopt clothing began to fashion their bodies instead and did not shrink from mutilations which would appear quite serious to the civilized. The tattooing probably has its source in the frantic search for the invisible female genitals and in the first 'artistic' impulse to recreate them artificially even on the male body. As far as the primitive art of tattooing persists in its degenerate form among civilized peoples the symbols of castration predominate. A shop in London's Praed Street displays the same castration symbol in a hundred variations: a serpent in the claws of a bird or in the teeth of a leopard; sometimes only a few yellowish scales indicate the serpent, a pretty example of how an obscure ornament can be traced to a symbolic form.[1] We understand now why a strong aesthetic sense is so often associated with male homosexuality which endows even the genitals with a sublime aesthetic effect. It has the function of neutralizing the wish for castration.[2]

The literature of Aesthetics has of old drawn attention to the fact that the aesthetic feeling tended to fall into two contrasting categories. It can be a feeling of awe-inspiring sublimity or a charming feeling of gracefulness. We noticed that musical ornaments fitted just as well into a pompous bass aria as into the coloraturas of a high soprano. It is often said that there is only one step from the sublime to the ridiculous, but it is equally true that there is only one step from the sublime to the graceful. This is particularly true of the style effects produced by the historical costume. The crinoline can be massive and pompous to express the heavy dignity of a queen, but can be just as easily of an unearthly grace if worn by a ballerina. The Baroque high-heeled shoe is graceful, but acquires a stilted majesty as soon as it is worn as part of the court dress. Mozart's little wig becomes inhuman if worn by a barrister in court. Often only a change in our subjective attitude will bring about the transition from one category of aesthetic feeling into the other. In other cases the distinction seems to be founded more solidly on the exterior world. The pompous Baroque and the playful Rococo reflect the contrast (but do they not follow each other in immediate succession? are they really essentially different?). Beethoven and Mozart, Michelangelo and Rafael are other pairs of contrast.

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[1] See Sir Herbert Read's essay, *In Defence of Shelley*, about this symbolism.

[2] I have tried to show in my paper 'The Origin of the Scientific and Heroic Urge' (*Intern. J. Psycho-anal.*, XXX-2, 110) that the shame feeling served to inhibit the male's wish for oral castration (the *Prometheus* complex).

Many lovers of art will protest at such superficial classification of great art. They will tell us that these masters expressed the whole gamut of human emotions; that Mozart is tragic and dramatic in the last scenes of *Don Giovanni*, that the shy and feminine nature of Michelangelo expressed itself in many tender and soft lines. These classifications into sublime and graceful serve only as convenient labels which save an undiscriminating public the bother of a genuine emotional experience. Bad commercialized art as practised in films, picture postcards, patriotic songs, and public buildings will either play on one or the other category of aesthetic feelings, will either try to be overpoweringly sublime or sugar pink, and thus dispense with real human emotions.

It looks as though these aesthetic feelings stand in place of real emotions, either dispensing with them from the outset or covering the great human emotions of masterworks. They equalize the emotional experience of art much in the same way as the style perception equalizes the form perception which accompanies it. We cannot go far wrong in considering the sublimity and grace of aesthetic experience as 'screen feelings'. Freud speaks of 'screen memories' concerning experiences in our childhood which are only remembered to keep more dangerous memories in oblivion. Now our memory of our childhood as a whole is steeped in feelings of sublimity and grace which are wholly incongruous. We now know from psycho-analysis that the child is a little primitive savage capable of a burning hatred and love unknown in our adult life. None of these savage emotions survives in our memory. Instead we perceive in the dim past a well-ordered childhood paradise in which the god-like parent pair live in sublimity and justice with a graceful and innocent child. The two feelings attach to the same parent-child relationship, once seen in the perspective of the little child looking up to his majestic parents, and then seen in the perspective of the parents who smile benevolently down on their innocent offspring. Forgotten are passionate hatred, fear, and desperate love. The screen feelings of sublimity and grace have taken their place.

The old infantile urges have become the repressed wishes of the adult. To gratify them, the artist builds up his world of phantasy. As he touches on the old dangerous emotions the superego quickly calls up the twin feelings of graceful innocence and awe-inspiring sublimity which have proved their usefulness in keeping our childhood in oblivion. The feelings of sublimity and grace occur wherever archaic emotions are overcome in art, in religion, or science. The Baroque feeling of sublimity accompanied the rational period of enlightenment in which the mysticism of the Middle Ages was finally overcome. The Rococo feelings of gracefulness are directly derived from a wish to escape into an innocent childhood paradise. Under the influence of Rousseau it was imagined that mankind as a whole had once lived in innocence and justice until modern civilization depraved it. And while subterranean thunders already announced the coming upheaval of the Revolution, the French aristocracy tried to escape into a graceful world of pastoral games and childlike innocence, to conjure up the lost security of a primeval paradise. Thus, the aesthetic feelings served to fake the history of mankind and to keep in blissful oblivion the primeval urges and memories which are still stirring uneasily in our unconscious minds and break out in the periodical upheavals of our wars and revolutions.

The archaic sexual crisis which set in motion the aesthetic process can be seen in the last abstraction as a struggle between Apollo and Dionysos (Eros and Thanatos), the principles of differentiation and chaos. The trend of all life goes in the direction of differentiation. The cells of the animal organism grouped themselves into organs with different functions. The evolution of the sex organs localized sexual excitement in the genitals. This was a success of differentiation. The severe sexual crisis following the adoption of an erect gait by humanity forced a retrogression to a less differentiated state as other non-genital organs now also acquired the power of sexual excitation. This was a victory of the chaotic Dionysian form principle opposed to differentiation and trying to re-establish a previous less differentiated stage.[1] The following emergence of the aesthetic feeling overcame the pan-genital urge by setting up a new differentiation between the parts of the body and reserving the maximum of sexual excitement to the genitals. The aesthetic process began as a feat of differentiation and later served as the basis of the gestalt process governing our surface perception.[2]

Life itself has been interpreted as differentiation. Schrödinger[3] suggests that life is an aperiodic crystallization. Of all inorganic processes the crystallization process comes nearest to life. A crystal 'grows' by repeating its molecular organization throughout. Schrödinger thinks that life in its beginning may be the growing of a crystal which does not repeat its molecular organization but builds up forms where the molecular organization is *differentiated* from one molecule to the other. The chromosome which is the bearer of the hereditary matter in the organic cell might consist of molecules so differentiated. But the chromosome organization has another unique property the possible meaning of which has made the deepest impression on me: the chromosome apart from having the highest differentiation of all matter, organic or inorganic, possesses a unique *permanency*. The atomic organization of its molecules which may represent the heredity is handed down unaltered through centuries through many generations. Schrödinger points out that inorganic matter cannot often claim such stable atomic organization. Schrödinger opposes to life the state of entropy: a uniform distribution of energy, a complete lack of differentiation and also of stability. Against this entropy life has to guard itself by building up its durable organization.[1]

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[1] In the next chapter, I will show that (anal) disgust and also the feeling of ugliness may serve Eros in differentiating the undifferentiated pan-anal libido.

[2] See for the possible biological function of the gestalt process, Chapter XIV.

[3] *What is Life?* (Cambridge University Press, 1944).

Why differentiation and permanency should always be associated is a matter for further speculation. It seems significant that the aesthetic process which set in on a high level of evolution to guard a newly won differentiation should have permanency also and reach beyond the life-span of the individual, like the organization of the chromosome. The dualism of body and soul acquires a new significance. Current biological theory excludes heredity beyond the handing down of the chromosome organization and takes the permanency of this organization for granted.

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[1] Schrödinger attributes to life the (oral) urge to eat, i.e. to internalize already existing life and differentiation; one could oppose to the internalizing tendency of life the externalizing (anal) tendency of the organism which decreases the internal differentiation by expelling the irritating excess of differentiation. Here might lie a beginning to a new theory of (oral, anal, etc.) instincts based on a dualism of life and death urges, such as envisaged by Freud when he first put forward a basic dualism between the life urge of Eros and the death urge of Thanatos. I shall suggest in the *Postscript* that an interaction between self-destructive Thanatos and reintegrating Eros urges lies at the basis of any cultural activity of man. I shall mention at the end of Chapter VI that recently Dr H. Segal conceived the creative process as primary disintegration of the self (and of the 'good object' in the outside world) under the direct influence of Thanatos urges; this primary acceptance of self-destruction allows the artist to rebuild his self and the object in the aesthetic experience of art. My own narrower analysis of the perception process (which is only one of the many ego functions) shows that Dr Segal's theory has a very technical application. The predominance of Thanatos in the first phase of creativeness is reflected in the destruction of normal surface perception and of its rich differentiation; the second phase restores the differentiated surface perception and cathects it with aesthetic feelings. Thus the primordial battle between Eros and Thanatos, i.e. the principles of differentiation and entropy (chaos), which in my view started the cultural process as a whole, is repeated in every single act of human creativeness.

But the life principle of differentiation which created the stable chromosome might have become creative again on the higher plane of the mind, creating there differentiations which again become permanent (like the differentiation of the aesthetic pleasure according to the different parts of the human body) and so reach beyond the life span of the individual.

IV

A Dynamic Theory of the Beauty and Ugliness Feelings

THE secondary style elaboration and the formation of the aesthetic feelings accompanying it could be best demonstrated in extreme border cases, like the transmutation of an exciting new fashion in female clothing into a stiffly decorative 'historic' costume, or the rigid stylization of much primitive art; these cases show in strong relief the dynamic process which transmutes an inarticulate form experience carrying a strong unconscious symbolism into an equally strong effect of a secondary style or stylization (Nietzsche's 'law of *strict proportion*').

The dynamic processes in the average artistic experience are not quite so vehement, nor the unconscious symbolism underlying it. Hence we must not infer from these extreme cases of secondary style elaboration that all 'style' in art is a mere projection on the part of the public; nor do I mean to imply that any aesthetic feeling must necessarily react against an unconscious sexual (pan-genital) symbolism. Sir Herbert Read in his *Ernest Jones Memorial Lecture*, 1950,[1] called my dynamic theory of the aesthetic feeling a step in the right direction, but—understandably—took exception to a possible interpretation that any aesthetic feeling, or creation of an aesthetic form, depended on a sexual symbolism. I hasten to correct such an impression. The incidence of the aesthetic feeling would depend solely on a dynamic tension between conscious and unconscious (or even only pre-conscious) perception when the aesthetic feeling would support the threatened surface gestalt against the disintegrating pressure of unconscious (pre-conscious) perception. To put it into the most general manner possible, the aesthetic feeling of beauty (and, as we shall see, that of ugliness as well) intervenes in favour of the principle of differentiation (Eros) against the levelling tendency of unconscious inarticulate modes of perception (Thanatos).

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[1] Read, H., 'Psycho-analysis and the Problem of Aesthetic Value', *Int. J. Psycho-anal.* (1951).

Aesthetic feelings are generated by the simple devices of the 'plastic mannerisms' where the surface gestalt is threatened by an increase in less articulate or wholly inarticulate form elements (such as the background negative, superimposed masses of light and shade, or the wholly inarticulate inflexions of glissando or vibrato). Aesthetic values are created whenever and wherever form experiences on different levels of differentiation set up tensions between each other. Thus aesthetic forms may indeed 'meet and multiply and breed new forms' (Henry Focillon, quoted by Sir Herbert Read). In this sense the aesthetic feeling may be part and parcel of any perception process in which several layers of the mind participate. The strongest dynamic tension, however, would be set up when wholly undifferentiated modes of unconscious perception, such as the unconscious 'pan-genital' mode of perception, threaten to disintegrate surface perception. According to the 'law of *strict proportion*' they would sting surface perception into particular feats of gestalt differentiation accompanied by particularly strong aesthetic feelings.[1] The artist's creative vision would reach further down and stimulate those archaic undifferentiated modes of perception as he disintegrates —temporarily—the functions of surface perception; hence also the increased aesthetic reaction of surface perception. A more superficial play with forms (such as a musical exercise in harmony) can readily get along without tapping the deeper layers of the mind and still produce pleasing effects.

A work of art certainly contains a large amount of 'primary' aesthetic style and form which the artist has introduced into its structure from the outset and which is not merely a 'secondary' projection on the public's part. It may be the result of a past secondary projection read into other works of art which now becomes a primary constituent in the new work. Such a work thus represents an alloy between an aesthetic superstructure of style and the inarticulate Dionysian form language of the depth mind, plus a growing measure of secondary style elaboration which transmutes a part of the inarticulate form material into a merely projected secondary style. A great style such as the Gothic is not altogether a secondary illusion, but is the result of a long and gradual articulation process which changed a merely projected (secondary) style into a primary style component, thereby enriching the articulate form language at the expense of the inarticulate form elements. In extreme cases (like primitive art or historical costume) the part played by the secondary style elaboration may be considerable—hence their great theoretical significance; but even there we have no certainty whatsoever as to what extent our style impression is due to primary or secondary style components. In the tamer evolution of an artistic form language we discern only a process of gradual articulation which continues to lift inarticulate form material to the surface and so enriches the already existing articulate form language. Nowhere can we observe this slow process of growth better than in the history of Western music and the gradual refinement of its scale, rhythmical and harmonic systems. (See the musical articulation process in Chapters V and VII.)

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[1] It will be contended in the last chapters that mankind may owe its stronger awareness of Beauty, Reality and Truth to the primeval crisis of sexuality, which temporarily destroyed the differentiation of perception and was responsible for an increased dynamic tension within the mental apparatus.

The growth of the artistic form language, whether of a whole historical period or of an individual artist, would thus be based on an inexorable process of *articulation*, transmuting the Dionysian form language of the depth mind into aesthetic style components, mannerisms, and ornaments. There is something inevitable about this articulation. We saw how the superego used the gestalt articulation of surface perception in order to seek out the unconscious symbolism hidden away in the inarticulate form constituents of a work of art, and so forced us, by our own conscious enjoyment of art form, to destroy its Dionysian power.[1] We could imagine artistic expression as a conversation between the artist and his public conducted on two levels simultaneously. The articulate form language, belonging to art's aesthetic superstructure, speaks to the public's surface mind and satisfies its aesthetic gestalt tendency. The form elements are traditional and open to rational analysis. Underneath the aesthetic superstructure another, secret conversation is carried on between the artist's depth mind and that of his public. Not only does this secret conversation use an inarticulate language which cannot possibly be grasped rationally, but its symbols are subject to a constant change owing to the secondary processes which lift them continually up to the articulate surface level. The artist's creative depth mind must unceasingly bring forth new yet unused symbols to replace those which have already undergone a secondary gestalt elaboration into style and ornament. The situation is curious.

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[1] See the short-livedness of the joke, due to a secondary aesthetic enjoyment, in Chapter VIII, p. 134.

The serviceability of a language depends on the repeated use of the same symbols which, through constant application, become known and accepted as expressing a certain meaning. A language which has to invent ever new symbols in which to express the same meaning simply could not make 'sense'. We would be reduced to mere guessing as to what the speaker means, and he might as well not speak at all, but merely indicate that what he wants is to convey some inexpressible meaning. This is precisely what happens in the secret conversation between the artist and his public (or, as we shall see, between the joke's inventor and his audience). Does such a conversation not approach an extra-sensorial communication like telepathy rather than what is understood by a language? Here we are touching upon a problem which I must be content to submit without being able to suggest a solution. A similar problem of 'communicability' will arise in the analysis of the joke's obscure 'nonsense' symbolism (see in Chapter VIII).

But perhaps we need not consider art a 'communication' between individuals. In the first chapter, I described the artist's contribution to the artistic experience as a 'primary' process, in itself incomplete, which stimulates 'secondary' processes in the public's perception. Creativeness may be an indivisible process in which the artist and the public each contribute their share.

In Chapter I it was also seen that the artist himself partook in the secondary processes; this makes him in a sense a member of his own public. Many an artist, when he has finished his work and can relax from his creative tension, may begin to look at his own work 'with different eyes'. His perception has indeed become 'different' after he has returned to his normal surface perception and becomes subject to the articulating influence of the gestalt tendency. He might then discover new formal effects of which he (fortunately) was quite oblivious while shaping his work; they were the work of his automatic-unconscious form control. We would expect that his all too articulate surface perception cannot but transform his automatically shaped form creations in the act of discerning them consciously for the first time. The artist will discover this, to his disappointment, when he attempts to repeat the same effect, now intentionally and under conscious form control, in a new work. He will find that the effect has lost his freshness and spontaneity; if it becomes part of his habitual technique, it degenerates into a decorative mannerism.

But the artist need not, in this crude way, become his own unsuccessful imitator. The cyclical change between an undifferentiated creative tension and articulate surface perception, inevitable probably as the cyclical alternation between Thanatos and Eros, will bring the gestalt technique of the artist's surface perception to bear on what he created unconsciously-automatically. He will absorb the secondary style and ornamental effects from his own work just as readily as from pictures on the walls of a museum, without conscious effort and intention to imitate. An inbreeding of his own form creations, which Sir Herbert Read envisages, will be the inevitable outcome. The slow evolution of an artist's personal 'style' will be based on this constant articulation of his own inarticulate form creations. As he matures his technique will become more and more encrusted with the dead weight of all too beautiful mannerisms which once had been inarticulate Dionysian forms. Only the strongest among the artists will carry this burden with ease and give freedom to his unconscious creative mind to bring forth new inarticulate forms which will die again as they meet the conscious eye.

The artist's compulsion to keep on developing his form language is thus explained. He is not really developing his 'style'; rather is he forced unceasingly to procreate new inarticulate and symbolic forms which are not yet part of his 'style'. These inarticulate forms, after a time, become articulated, thereby lose their emotional power, and in dying add yet another sediment of style to the many petrified layers of the existing form language.

We must be grateful for the constant devaluation of the symbols used in the unconscious conversation between the mind of the artist and that of his public. The symbolic content of the artist's unconscious message is disappointingly monotonous. Psycho-analysis is unjustly blamed for continuously rediscovering the same archaic symbolism in the unending variety of artistic expression. This stereotyped monotony is due to the general lack of differentiation in the unconscious mind. Fortunately the artist is forced to express this age-old and unchanging message in ever new forms owing to the promptness of the secondary processes which deprive them of their currency as Dionysian symbols as soon as they are created. Were it otherwise, the artist could be happy with perfecting the most adequate symbolization of his creative urges and then either sit back contentedly or else be satisfied with the endless repetition of the once successful formula. But as things are, the creative urge of the artist cannot be satisfied merely by a final and successful symbolization. No sooner is his task completed and he can feel that, at last, he has succeeded in expressing in final form that which had been oppressing him, than the finished work becomes stale, and almost at once he will be driven to attempt the impossible again. The task of the artist is like that of Sisyphus—it is never completed. After each attempt he will feel that there is something which has remained unexpressed. He may think that he has not exhausted the possible content of his artistic message, yet in actual fact he has. The content is unchanging: he must ever create new forms in which to express it.

A youthful work of a master may express, perhaps immaturely, something of what is contained in his greatest and ripest work. I found that late and mature works of a master, far from elaborating and disguising an unconscious symbolism, can afford to show it in far thinner disguise, so that it is invariably more rewarding to start a psychological analysis with later works and work one's way back to the first. In my view, much of the mystery of Goethe's *Faust* disappears if we consider it side by side with his youthful work *Werthers Leiden* which, at the time, was so much more successful. Werther's suicide symbolized the self-destructive urges rising in our civilization and indeed inspired a wave of romantic suicides. Faust's pact with Mephistopheles has been the subject of much speculation, perhaps because it expresses the self-destructive wish almost without any disguise. Freud interpreted the unconscious meaning of a devil's pact in a case of demoniacal possession in the seventeenth century as a self-destructive wish. The unconscious aim of the devil's victim was not so much the valuable services of the devil in attaining pleasures, but his own self-destructive subjugation under the devil. Faust's pact with Mephistopheles shows even more clearly how little the victim (here Faust) is interested in bettering his material position, and that the pact really aims at his self-destruction. Faust allows Mephistopheles to serve and humour him, but declares himself willing to perish at once on finding a single moment of his life so pleasurable that he wanted it to linger on. The mystery of this indeed incredible utterance is that, on the face of it, it represents a full reversal of the normal psychological reaction to happiness; for only a deeply depressed and suicidal person would wish in earnest to die in a happy moment, while others would then find life all the more pleasurable and hence wish it to last longer. Faust's pact with the devil is to be understood literally, namely as a rejection not only of normal human happiness, but of life itself. It is the consummate artistry of Goethe's masterpiece that he could express his own (of course unconscious) self-destructive wish so explicitly and still befog the minds of his interpreters as to its real meaning. One can sometimes feel how a great artist's lifework possesses an inner cohesion like the single movements of a symphony; they are seemingly different and yet elaborating the same inspiring idea. This indivisibility of his work justifies the value which we are wont to put even on a minor work of a great artist.

There remains another unsolved and perhaps insoluble problem in the analysis of the articulation process. If we accept that the primary inarticulate art symbolism is stereotyped and monotonous while only the secondary processes articulating the symbolic forms produce variety, how is it then that in the Gothic period, for instance, the secondary articulation processes produced just the typically Gothic style elements, while in another period they produced the style elements typical of that time? Must there not already be, in the primary inarticulate symbolism, something which steers the secondary articulation processes in a certain direction? I think we have to assume the presence of such a specific form element to be inherent in the primary process of art, but owing to the epistemological limitation of our observing surface mind which is confined to the gestalt structures of its own level, we may not be able to discern structural differences in what must appear to the gestalt-bound surface mind simply gestalt-free, inarticulate structures. Here our analysis must arrive at its preordained limit which will be valid for as long as scientific observation is prepared to restrict itself to observations on the gestalt-bound level of the surface mind.

Between the fully articulate stage and the inarticulate initial stage in the articulation of the artistic form language, we have to distinguish several intermediate stages and, as we shall see, perhaps a final stage which discards a hackneyed form effect that has lost its aesthetic appeal as well as its original Dionysian emotion. There are, in all, about four stages in the birth, growth, and ultimate death of a new articulate form element; these stages are more clearly distinguished in the articulation of a new musical form element (such as a new harmonic chord or a new scale tone) so that I would like to postpone the full description of these stages until after the discussion of the musical articulation process in the next chapters. I would like to discuss now only the rôle which the polar aesthetic feeling of ugliness plays in a possible intermediate stage of the articulation process.

A new Dionysian art, like a new fashion in clothes, becomes ugly and 'old-fashioned' when it has lost its Dionysian faculty to excite, but has not yet matured into the beauty of an historical style. Until recently, Victorian fashions were held almost in disgust. To us, the Victorian drawing-room appeared to be crowded with useless furniture and bizarre ornament. But in the recent sentimental revival of a newly discovered Victorian 'style' the grandeur and purity of the great Victorian age seemed suddenly to be revealed. It was as though there emerged a noble outline previously hidden in the chaos of preposterous detail. We witnessed the 'bump-erasing' function of style articulation in its last stage. The bizarre, untidy-looking detail is more and more smoothed into the newly discovered simple line and stylistic purity which, however, is entirely the work of a secondary projection of a 'good' gestalt.

We may conjecture that great styles before have gone through a corresponding stage of untidy ugliness. In the Victorian age, the Baroque of the preceding century served as an example of tasteless complexity; hence the meaning of the word 'Baroque' to denote cramped confusion. In the same way, during the Baroque period the word 'Gothick' had the very same deprecating connotation. We may safely conclude that in each of those times the art of the preceding centuries seemed full of overcrowded and incoherent ornamentation. Feelings of ugliness would thus accompany the first stages of style articulation until they were turned into the polar beauty feeling of simplicity, harmony, and order. In the Dionysian stage the new inarticulate form cannot be experienced as aesthetically unsatisfactory because it is not yet consciously perceived. Feelings of ugliness can only attach to an intermediate stage when the Dionysian form is prematurely lifted to the level of surface perception before the secondary articulation processes had time to give it the 'good' gestalt required by the surface mind.

In the next chapters we shall describe the dissonance as an 'ugly' intermediate stage between the consciously inaudible 'transitive' chords which are not yet articulated, and the fully articulate ('substantive') consonances which can sound on their own without offending the ear (this distinction, of course, applies only to the classical harmonic style). Musicians will at once object that the dissonances are not 'ugly'; their strident tone quality will upset the harmonic structure only if they are applied like consonances which alone can sound in isolation without falling unpleasantly on the ear; they must be muted by a melodic context (preparing and resolving the dissonance) which slips them inobtrusively into the progression of harmonic chords. Schönberg, in an ingenious theory, recognizes the resemblance between the partly hidden dissonances and the completely hidden 'transitive' chords which seem to form merely melodic connexions between the articulate chords.[1] Dissonances are half-articulate chords which the ear picks out from the hidden transitive chords and which have not yet achieved the smoothness of consonances. What interests us in connexion with the theory of feelings of ugliness is that the half-articulate dissonances are 'ugly' only when they are not muted or hidden by melodic preparation, but used as openly as are the fully articulate consonances. They would then strike us as ugly, as do all half-baked, half-articulate Dionysian forms when prematurely exposed to the full glare of conscious surface perception. Let us sum up. Dionysian form is neither 'beautiful' nor 'ugly'. It repels and evades conscious perception altogether and is part of that unconscious Dionysian form language in which the direct conversation between depth mind to depth mind is conducted. Gradually, as it is raised to the surface level, there may intervene an intermediate stage when its transmutation into a beautiful fully articulate form element is not quite completed. If it is exposed, in this half-articulate state, to surface perception, its lack of 'good' gestalt is experienced as something very unaesthetic or 'ugly'. If, however, the half-articulate form is not fully exposed, but—as in the case of a 'prepared' dissonance—still remains in the twilight of perception (in the pre-conscious layers of surface perception) the feeling of ugliness need not occur. Modern gestalt-free art is experienced as 'ugly' by its opponents only because they cannot effect in themselves the diffuse state of consciousness in which these weakly articulated forms should be viewed. To the adherents of modern art, it appears as neither beautiful nor ugly; they seek a more acute Dionysian form experience which sharpens their sensibility rather than soothes it by aesthetic pleasure. Arnold Schönberg suggests that beauty is only a psychological condition of the uncreative's empathy through which he partakes in the creative experience, a mere 'by-product' of the creative process.[2] He could not express better the secondary character of the aesthetic feeling.

We attributed to the aesthetic feeling a dynamic function serving to uphold the once achieved gestalt articulation against the continuing pressure of inarticulate depth perception which, though enfeebled through the loss in its energy charge, still perceives the repressed symbolism. The inarticulate forms embodying the symbolism are objectively there. The danger that inarticulate depth perception responds to these and attracts its former energy charge is never removed (see p. 61). I suggested that the incidence and strength of the aesthetic feeling was not dependent on objective properties of beauty embodied in the beautiful object, but was determined by internal necessity; the experience of objective beauty was only an illusion projected on to the object by the aesthetic feeling. The subjectivity of beauty is now impressively demonstrated by the fact that the same artistic work or form element can be successively ugly and beautiful. The initial ugliness would be a projection of internal tensions as much as the later beauty.

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[1] For Schönberg's treatment of the 'accidental' transitive chord, see Chapter I.

[2] Schönberg, A., *Harmonielehre* (Universal Edition, 1911), pp. 364, 365.

Thus we see that the two polar feelings of beauty and ugliness are not so far apart as they may appear to be; to repress unconscious symbolism is the dynamic function of them both. While the aesthetic feeling of beauty simply supplants the inarticulate symbolism by the illusion of 'good' gestalt, the action of the ugliness feeling is more primitive. It cannot push out from consciousness the dangerous symbolic forms in their still half-articulate state, but it can debase them and so make them unpalatable. John Rickman suggested that the feeling of ugliness rested on unconscious guilt and anxiety feelings.[1] This anxiety may be the work of the superego. The superego directs the action of the gestalt articulation towards the inarticulate symbolism. But as the symbolism is forced up to the surface level in a still half-articulate state, the repressed urges symbolized in it oppress the ego with anxiety and guilt feelings. The feeling of ugliness, by serving to contain repressed contents on the verge of becoming conscious, is similar in its function to that feeling of uncanniness which Freud explained from a return of repressed material near to or into consciousness. Rickman also called attention to the relationship of the ugliness feeling to feelings of disgust and their anal origin. Anal disgust is a stand-in for a full repression. It only succeeds in containing the infantile pleasure in excrements by debasing their object. The necessity of this debasement indicates the still persisting danger from the underlying anal urges.

The relation between anal disgust and the aesthetic feeling of beauty goes even deeper. We suggested that the first function of the human aesthetic feeling served to redifferentiate the voyeur libido, which had strayed from its original centre in the genitals (see p. 64). The 'pan-genital' voyeur libido spread to non-genital body parts was partly transmuted into beauty and only the 'unbeautiful' genitals as its original centre retained the full voyeur excitement. Thus the new aesthetic feeling set up a new differentiation of the voyeur libido distinguishing again between genital and non-genital parts of the body. Now the feeling of anal disgust has a similar differentiating function. There exists in the infantile development a stage when the anal libido becomes undifferentiated. The pleasure taken in the anal rhythm of retaining and subsequently expelling is not confined to the excretive function, but the child unconsciously identifies the genitals with excrements as well as the vagina with the anus. The later emergence of anal disgust establishes a new differentiation between the anal and non-anal zones. The anal libido becomes debased at its original centre in the excretive function, but not so in the other non-anal zones to which it had spread. The important result is that the genitals are charged with a borrowed anal libido which becomes their permanent acquisition. The transition from an undifferentiated stage of the libido to a differentiated one has a different aspect in the case of the aesthetic feeling and in the case of anal disgust. The aesthetic feeling guides the voyeur libido back into its original centre in the genitals by transforming it into beauty in the non-genital zones; the disgust feeling transfers to the genitals a new borrowed libido charge by debasing the libido at its original centre. The result is, however, the same—an enrichment of the genital libido charge. (I hope to show in a later publication that the primeval crisis following the adoption of an erect posture by humanity did not end with the spreading of the voyeur libido to non-genital objects, but developed to a climax, provoking in turn other cultural attitudes and activities. I will try to show that the emergence of anal disgust marks the high-water mark of the self-destructive urges both in the infantile development and in the primeval crisis which may be ontogenetically repeated in the mounting aggression and anxieties of the very young child.[1] The break-through of an undifferentiated anal libido at the climax of the crisis called up the first cultural reaction, namely anal disgust, the first function of which would have been to redifferentiate the anal libido and so to re-endow the genital sexuality with a new libido charge. Awkward as it must be to anticipate so far-reaching an hypothesis without any attempt to establish it, it nevertheless supplies in this context the detail which by right belongs to the depth-psychological theory of the aesthetic feeling. It enables us to see the possibility of interpreting both the feelings of beauty and of disgust (ugliness) as manifestations of Eros, the principle of differentiation, in his fight against Thanatos, the principle of undifferentiated entropy.)

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[1] Rickman, John, 'Nature of Ugliness and the Creative Impulse', *Intern. J. Psycho-anal.*, XXI, 294.

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[1] In my already mentioned paper 'The Origin of the Scientific and Heroic Urge', I submitted that the spreading of the genital voyeur libido led to the further break-through of a more primitive oral aggression and self-destruction which later became absorbed into the scientific urge. These oral crimes are ontogenetically repeated in the early oral phantasies of devouring which Melanie Klein discovered in the very young infant. Art and science, true to their close relationship, would also be connected in their origin in the primeval crisis of sexuality. For further details, see the *Postscript*, and particularly p. 268.

The close co-operation between the polar feelings of beauty and of disgust (ugliness) becomes fully apparent in their joint function within the articulation process of art forms. We recognize now, after our tentative attempt to discover the derivation of the ugliness feeling from anal disgust, the distinctly 'anal' character of 'old-fashioned' style. We tend to project into an old-fashioned style the feeling that it is merely untidy junk; consequently we may feel a wish to remove grandmother's furniture from our sight or even to destroy it, a wish which has been responsible for much wanton destruction of what later generations came to recognize as noble and simple beauty. The impression of disorderly, cramped untidiness that belongs to old-fashioned art is in such sharp contrast to the later simplicity of a mature style that we must now be willing to admit that we project the 'anal' disorder into art as much as we invest it later with the simple nobility of style.

V

The Articulation of the Musical Form Language

THE depth-psychological analysis of musical form has one great advantage; there is a sharp distinction between articulate and inarticulate form elements, such as scale steps and scale-free tone steps, articulate and free rhythms or chords. In painting we contrasted the articulate surface gestalt consisting mainly of the broader outlines and surfaces with the less articulate background forms and the totally inarticulate scribbles of the artistic 'handwriting'; but we could not, in a specific work of art, divide the single forms cleanly into articulate, half-articulate, and totally inarticulate form elements. But this is possible, at least to a very great extent, in music.

There, the conscious hearing picks out, as a rule, only those scale, rhythmical, and harmonic elements which are parts of the scale, rhythmical and harmonic 'systems' (prevailing at the time) and fails to discern the scale-free, rhythmically free and harmony-free transitions in between. This technique of listening to the stream of music is reminiscent of our listening to the stream of language. When William James, with infinite care, dissected the seemingly homogeneous flow of thought and language, he had great difficulty in establishing the specific inarticulate structure of the 'transitive' form elements which link up the fully articulate 'substantive' elements (see Chapter I, p. 9). Our memory picks out from the stream of language only the substantive elements and fails to retain the transitive elements in between. While our thinking was in transition from one clearly articulate image or thought to the next, nothing seemed to be happening at all; it needed utmost subtlety and introspective acuity to become aware of the fleeting and ambiguous form experiences filling the short states of suspension lasting until the arrival of the next articulate experience. The ability to bear long stretches of inarticulate suspension varies. William James says: 'We think it odd that young children should listen with such rapt attention to the reading of stories expressed in words half of which they do not understand, and none of which they ask the meaning. But their thinking is in form just what ours is when it is rapid. Both of us make flying leaps over large portions of the sentences uttered and we give attention only to substantive starting points, turning points, and conclusions here and there. All the rest, substantive and separately intelligible as it may potentially be, actually serves only as so much transitive material.'[1] The child's perception draws out into slow motion the suspensions between the substantive turning points; he is able to bear a greater amount of mere transitive material than the more rational adult.

Exactly the same relationship exists between primitive and more highly developed music. In highly developed music the articulate melodic and harmonic elements predominate; hence it is easy to record such music by musical notation. We hardly take notice of the interspersed transitive (glissando- or vibrato-like) inflexions of the melody and hardly feel the need for enforcing their execution by musical notation (as far as our crude methods of notation permit our doing so at all). We only tolerate them as short and fleeting transitions between the predominantly articulate tone steps. A glissando executed too slowly or an unbroken succession of several glissandos are sure to offend our (too articulate) method of listening. (After what has been said in the last chapter we may understand better the 'ugliness' of a glissando or vibrato whenever they emerge from unconscious perception and push themselves into surface perception.) In civilized music, the glissando and vibrato inflexions only serve as the mortar connecting the solid brickwork of the articulate (substantive) scale steps. Much primitive melody, in comparison, would appear as being 'all mortar and no bricks'. It seems to consist of endless glissando and vibrato passages with but few resting points on articulate tone steps here and there on which our attention could settle. The primitive musician, like the child listening to a tale half-understood, is able to bear long stretches of inarticulate material which would drive the civilized listener to distraction. (In our approach to less articulate forms of music we must avoid projecting our own all too articulate method of hearing into the original experience of primitive or archaic music, otherwise we should commit something very like the 'Psychologist's Fallacy' which projects a later, more articulate impression back to the original, less articulate form experience.)

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[1] James, William, *Principles of Psychology*, p. 264.

V. THE ARTICULATION OF MUSICAL FORM

The 'prehistoric' period of Western music ended with the invention of musical notation during the late history of the medieval Gregorian hymns.[1] The possibility of recording a melody by notation presupposes an already highly articulate melody where the articulate scale steps, which alone can be satisfactorily recorded, preponderate. Hence the written history of Western music leaves behind in prehistory the arduous transition from a truly primitive inarticulate melody to a highly articulate one. Yet the Gregorian melodies are still rich in musical 'ornaments' which, owing to their inarticulate glissando- or vibrato-like structure, could only be noted by abbreviating symbols. It is possible to observe in the last development of the Gregorian hymns that this inarticulate ornamentation tends to drop out and is replaced by fully fledged, articulate scale tones. (We shall later comment on the very interesting interpretation which Yasser gave to these gradual changes in melodic articulation and which allows us to reconstruct part of the prehistory of the Gregorian chants.)

We are more fortunate in our knowledge of the harmonic and the rhythmical articulation process. The evolution of a truly harmonic polyphony is the proud possession of European music. This evolution followed the decay of the Gregorian hymn which, before the advent of medieval polyphony, had been sung in a single monophonic voice. (I shall submit that the decay of the Gregorian melody and the birth of polyphony was due to a sudden rise of irrational urges in the late Middle Ages, incidentally the same urges which stimulated the ecstasies of the crusades, of the Gothic age, and finally broke through in the medieval witch and devil beliefs, i.e. the wave of 'Prometheus' guilt feelings which after a millennium's interval followed on the first wave of Oedipus guilt feelings, underlying European Monotheism; see the *Postscript*.)

This irrational spirit could no longer express itself in the all too articulate, all too rational melodies of the official Gregorian chant. The Church seems to have tried to preserve the Gregorian hymns intact just as it became the custodian of classical rationality in the seclusion of its monasteries. Through the newly invented musical notation it was possible to prevent any deviation from the traditional melody, such as a possible retrogression into a more ornate, less articulate style.

A highly articulate art may indeed undergo an 'ornamentation', or acquire other characteristics of a primitive art or 'stylization' if it is called upon to serve a less rational civilization. In the visual arts we can thus explain the strange transmutation which a highly rational Hellenistic art underwent in medieval Ireland. The pious monks there learned the craft of illustrating ('illuminating') books from their Hellenistic brethren who had developed it into a highly realistic art, even practising the rudiments of perspective. It appears that its elegance and clarity did not suffice to express the religious ecstasy of the misty North. We observe how a lusty ornamentation produces quite nice decorative effects in the borders of the book pages and is sometimes allowed to grow over the holy countenances of the saintly figures in the centre, distorting them into weird apparitions.[1] To call this transformation an 'ornamentation' is misleading in the same way as it is misleading to call any other primitive art 'ornamented' or 'stylized'. This would suggest that aesthetic reasons or a need for rich decoration would have prompted the change. It would be very much in accordance with current methods of style research to explain it from the style 'influence' exercised by the traditional Celtic animal ornaments. Are we to believe that the pious monks would have used the face of their Saviour to practise traditional ornamentation? It is true that an indigenous form tradition will automatically distort any imported art or art technique. But the violent transformation of Hellenistic art at the hands of the Irish book illustrators goes beyond such subtle modifications. In accordance with the interpretation of primitive 'stylization' previously suggested in this book, not an aesthetic wish for decoration, but intense religious fervour forced the monks to distort the sober realism of a more civilized intellectual art which could no longer express their emotions.[2]

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[1] The references to medieval music are mainly based on Gustave Reese's standard work, *Music in the Middle Ages* (London, J. M. Dent and Sons, 1941); the interpretation of the historical facts is my own.

The simple lines of the Gregorian chant, cleansed as they were of previous inarticulate ornamentation, could have blossomed out again into primitive glissando and vibrato-like ornaments had not the authority of the Church prevented such deviation from the prescribed hymns. That such a regressive tendency existed is proved by the later development of medieval music, once a way had been found to circumvent the laws of the Church (see the florid 'ornamentation' in the earliest forms of a true polyphony later on).

As happens in all ways of life, an urgent psychological need will find an outlet even in the face of almost insuperable external prohibitions. Here this outlet was offered by the invention of a polyphony in a very primitive form, namely that of the *organum*. In this most archaic type of polyphony the voices were not yet allowed to stray freely into converging or diverging melodic lines as they were to do later, but were forced into a strict parallelism keeping a rigid interval between them. What happened was that the Gregorian melody was in no way changed; it was simply duplicated by adding other, usually higher, voices. Attention has been attracted to the fact that this type of 'parallel' polyphony also occurred in widely separated primitive cultures, with the sole difference that the rigid interval between the voices may not always be the same. A mutual 'style influence' was out of the question. I shall show in Chapter X (dealing with acoustic 'thing' perception) that the *organum* corresponds to a 'thing-free' mode of unconscious perception which would have pushed its way up in many primitive forms of music. Just as certain structural peculiarities of primitive sculptures common to many distant tribes were to be explained as independent manifestations of a gestalt-free mode of vision (see above, p. 46), so the independent occurrence of the *organum* in the music of several primitive civilizations would be the expression of the same unconscious thing-free mode of hearing. The *organum* would also be an additional demonstration for my contention that European art can acquire genuine 'primitive' traits if it is subjected to the pressure of irrational urges. Hence also the very distinct primitivism of 'modern' European painting deserves to be considered as a genuine symptom for the ascendancy of irrational urges in our time.[1]

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[1] See Plate IV.

[2] Read, Herbert, *Art and Society* (London, Faber and Faber, 1945), p. 62.

We have already touched on the irrational character of a true polyphony in the second chapter when we discussed the 'ear-wandering' effect of several voices sounding simultaneously. In true polyphony any voice is liable to attract conscious attention with equal force and therefore induces a diffuse, gestalt-free state of attention which Bergson has described so well. We suggested that the growing rationality, particularly of the seventeenth century of enlightenment, no longer tolerated a true polyphony of several equally significant voices; it gradually established a single voice, usually the highest, as the dominant 'melody' and fused the others into the harmonic tone colours of chords which served the dominant melody as a mere background. Thus the single melody of the Gregorian chant which had offered to conscious attention a single unambiguous content was once again restored (see p. 41).

We can now be a little more precise. We must guard against projecting ('retro-relating') our own harmonic mode of hearing polyphony back to the pre-harmonic beginning of polyphony. We cannot easily imagine a mode of hearing which fails to fuse several simultaneous voices together. Nevertheless even classical harmonic music does not fuse all chord combinations into articulate chords, we still fail to pick out the numberless 'transitive' chords in between. Is it possible that there once existed a pre-harmonic hearing which knew nothing but inarticulate chords so that they were no longer 'transitive' mortar between the brickwork of articulate chords, but stood on their own? We remember that in primitive melody too the merely 'transitive' glissando- and vibrato-like inflexions of articulate music spread out into continuous passages so that a primitive melody may sound to us like an unbroken sequence of 'smears' and wobbles. Should primitive pre-harmonic polyphony have consisted of inarticulate 'transitive' chords only, with a few or none articulate chords serving as occasional resting points?

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[1] For the 'irrationality' of a whole culture see the beginning of the *Postscript*.

The writings of medieval musical theorists speak for such an assumption, if we are prepared to take them at their face value. Gustave Reese[1] expresses amazement when a medieval theorist demands that one should write nothing but consonances; to our ear the very early polyphony of his time contains extended passages of the most jarring dissonances which only here and there are relieved by consonances, usually at the most conspicuous places such as the beginning of the rhythmical measure. Can we be so certain that the medieval musician's still weak power of harmonic articulation was able to pick out harmonic chords except at the most exposed places? It strains our imagination to believe that the medieval musician should have been content with picking out a simple consonance here and there, and neglecting the rest as mere transition without structural significance. But is it not a characteristic of any still primitive articulation process that it can bear and at the same time repress extended passages of inarticulate form material, like the hearing of children who—according to William James—are able to listen breathlessly to complex stories, content to pick out here and there an occasional familiar word? The child and the primitive artistic articulation take 'flying leaps' over large portions of inarticulate form material.

We must beware of a too condescending attitude towards the yet 'weak' power of articulation in primitive or archaic musical hearing. One could speak with the same justification of our lost 'ability' for repressing extended passages of inarticulate form material. Neither are the remnants of inarticulate forms (glissando, ornaments, transitive chords, etc.) in our own music due to our 'failure' of articulating them (as a future music historian might well think, see p. 121). The inarticulate tone events have their structural significance; their successful repression from conscious hearing produces highly valued aesthetic and plastic effects as we have seen in our discussion of the plastic tone quality of the glissando and vibrato. Moreover, as we shall see, they constitute the breeding place where experiments in new scale tones, rhythms, and harmonic tone colours can be conducted safe from conscious detection. Without its measure of inarticulate elements, an art might not only lose its plastic vigour and aesthetic appeal, but also its power of further development. The wealth of inarticulate form material in primitive or archaic art testifies to the predominance of unconscious form creation in such art and to the strength of its Dionysian emotion compared to which the tamer effects of civilized art may pale. While our highly articulate art may be more aesthetic and neat in its workmanship, the less articulate primitive art may, at least in the perception of an audience still gifted with the ability of repressing its rich inarticulate form material, give an overwhelming plastic and emotional experience. We may well feel at a disadvantage because we are no longer able to keep the extended transitive passages of strident cacophonic chords inarticulate and repressed; we are so excluded from partaking in the intense plastic experience characteristic of such inarticulate art (see plastic experiences as result of repression processes in Chapter XV). The mysterious '*color*' which medieval musicians are said to have heard in their music may be the description of the plastic experience of tone colour with which we have to credit less articulate types of music and which we can no longer appreciate.

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[1] *Ibid.*, p. 305.

If we are ready to credit medieval music with a different, less articulate mode of hearing we may arrive at a new concept of its 'preharmonic' polyphony. If harmonic fusion into chords did not play an important rôle in medieval music, then the wish for harmonic fusion could not have been the aim of its early polyphony. We have already put forward the suggestion that the invention of polyphony was a sign of a new irrational trend pervading the later Middle Ages. In Chapter II we used the true polyphony as the best example for a gestalt-free superimposed structure which confounded surface perception. The study of musical history perhaps allows us to be a little more precise.

Bolero, the old *organum* movement appears again in its old primitive beauty.

The transition from the parallel to the free movement of voices was also momentous in another direction. It freed polyphony from merely duplicating the Gregorian melody which alone was admitted for official use. As the higher voices began to branch out freely, they also executed that retrogressive step which, according to my earlier suggestion, the authority of the Church had been able to keep out from the Gregorian melody proper; they suddenly blossomed out into a rich, inarticulate 'ornamentation' (which today's style research would say derived from Moorish 'style influences'). This exuberant music was first sung in medieval France, at the same time and place where the heavy and simple Romanesque style began to sprout into the 'ornamentation' of the early Gothic. Was the Gothic another Moorish style influence?

We are fortunate that we can study a very similar retrogressive step in psychological conditions not unlike our own, namely the development of a rough and ready polyphonic music among the first American colonists. This music spontaneously produced a polyphonic style bearing the authentic stamp of medieval primitivism. A style influence derived from an erudite knowledge of medieval music is, of course, quite improbable. Those early settlers could not take much of their cultural heritage with them, but often driven away from their homelands by the threat of religious persecution, they took with them a few hymn tunes. At first they sang these in simple monophony as, a millennium before, the Gregorian hymns were sung. It would appear that this austere music did not suffice in the long run to express their more intense religious emotions and so they re-invented polyphony. We may not be able to treat this rediscovery as though the memory of the European harmonic polyphony had not in fact a telling influence in speedily restoring their almost lost cultural heritage. Yet the historically recorded emotions accompanying this rediscovery are reminiscent of the ecstasy of the Middle Ages; we can observe a new pleasurable confusion and the re-emergence of authentic primitive traits (like the empty fifths or the crossing over of the voices). The chief expounder of the novelty described the public's reaction to the impact of a new polyphony in these exuberant terms: 'their minds [are] surpassingly agitated and extremely fluctuated, sometimes declaring for one part and sometimes for another. Now the solemn bass demands their attention; next the manly tenor; now the volatile treble. Now here, now there, now here again. O ecstatis! etc.'[1]

This passage, in spite of its involuntary humour, aptly describes the irrational pleasure taken in confusion, i.e. the confounding of the acoustic 'thing' differentiation which John of Salisbury also described in ecstatic terms. It would appear that polyphony in a new field of application tends to be tolerated at first only as an expression of confusion. In opera, the soloists are dramatic persons and their singing stands for a dramatic dialogue. For a long time ensemble singing was not tolerated. Aristotle's criticism that polyphony was tantamount to several speakers trying to say the same thing ineffectually may have kept the singing of operatic soloists monophonic. But when ensemble singing did arrive, it came under the pretext of expressing confusion, and of an exciting situation of 'perplexity'.[2] The primitive or archaic listener does not need such an excuse for enjoying confusion in art form. E. H. Pierce criticizes the 'Fugue-Tune' of the American colonists as being clumsy and so misunderstands the structural significance of the empty or parallel fifths and the crossing over of the voices. Significantly the medieval theory of music taught the crossing over of voices as a deliberate technical device for producing '*color*'. For us the crossing over of voices which makes them exchange their position within the harmonic structure (for instance the bass rises above the tenor or vice versa) is frowned upon because, like the 'parallel' fifths or octaves, it confuses the clear and independent structure of the polyphonic voices. But is not 'confusion' the aim of inarticulate music? We do not wonder therefore when we hear that the crossing over of voices (*Stimmtausch*) was considered by medieval musicians to be a means for producing a much desired '*color*' (Reese, pp. 305 *et seq*.).

I am not putting forward this hypothesis as anything like a solution of the musicological problem what medieval '*color*' meant to its contemporaries. I am the first to admit that it is quite impossible for us to force our minds back into a more primitive stage of art. The hypothesis may only show more clearly how very differently the same music might fall on our ears and on the hearing of a bygone age.

It is necessary to keep in mind that a less developed power of articulation was far more easily confounded. It was then more easy to 'hide' dissonances, inarticulate scale steps or inarticulate rhythms from conscious hearing. One of the unsolved mysteries of medieval music is a rhythmical mannerism in a certain medieval style of music which made the higher accompanying voice move in an independent triple rhythm superimposed upon the stately procession of the Gregorian melody below.[1] I am inclined to think that this independent triple rhythm indeed evaded the conscious rhythmical articulation of the medieval listener though to us it seems an only too simple combination of two independent rhythms. Again the purposeful introduction of a confusing rhythmical element may have produced a desired '*color*'.[2]

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[1] Pierce, Edwin Hall, 'The Rise and Fall of the "Fugue-Tune" in America', *The Musical Quarterly*, XVI-2, 221.

[2] See Dent, E. J., *Opera* (Pelican Special, Penguin Books, 1940), p. 36.

We have an analogous phenomenon in the music of our time where a triple rhythm produces a very attractive tone colour by confusing our rhythmical articulation; I am referring to jazz rhythm. To the average European listener the rhythmical movement of the jazz melody above the main beat of the accompanying percussion seems wholly inarticulate. The melody continually seems 'out of step' with the main rhythm, either coming just a little too early or a little too late. I was very surprised when I learned that this seemingly inarticulate rhythmical interval could in fact be measured and is then found to be usually an independent triplet rhythm superimposed upon the main rhythm of four beats, i.e. the melody will be 'out of step' by exactly one-third of the main rhythm. The European musician, with his comparatively weak power of rhythmical articulation, cannot easily articulate the two superimposed rhythms. The triplet rhythm is repressed and fused into the main rhythm and as a conscious signal of this rhythmical 'repression' the jazz rhythm acquires its characteristic crisp tone colour.

We shall see in our analysis of acoustic 'thing' perception in Chapter X that music, in imitation of the 'natural' tone colours of the real things (which are based on the 'repression' of the overtones), produces 'artificial' tone colours by repressing in its turn various inarticulate tone steps, rhythms, chords, etc. We already saw how the repression of the inarticulate tone steps of glissando and vibrato produced their specific tone colours; the crisp tone colour produced by the repression of the inarticulate triple rhythm of jazz would be an example of an artificial musical tone colour produced by means of a device for repressing inarticulate rhythms. As we shall see that inarticulate tone events which are unconsciously perceived produce a conscious experience of tone colour, it will not then be unreasonable to assume that the medieval preference for inarticulate and confused perceptions was indeed rewarded by experiences of tone colour or '*color*' which have become inaccessible to us. The stereotyped triplet rhythm in the higher polyphonic voices, superimposed upon the Gregorian main melody below, might have baffled the still weaker rhythmical articulation of the Middle Ages much in the same way as the hardly more complex triplet rhythm of negro jazz is able to confound our own rhythmical articulation, and might have produced the same conscious result for its contemporaries, a specific '*color*'.

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[1] Reese, *ibid.*, p. 273.

[2] See for an explanation of tone colour from the repression of inarticulate tone events Chapter XV.

If we attribute to the Middle Ages not so much a weaker power of articulation as a will to introduce inarticulate form material in order to confound articulation, we become aware of the existence of two opposing forces in the evolution of artistic perception. Apart from the inexorable articulation process which continually lifts new inarticulate forms from their hide-out to the articulate surface level, there would be an opposing process of 'repression' tending to introduce inarticulate form material. This dualism in the dynamic trends underlying unconscious perception will become much clearer in our discussion of 'thing' perception in the second part of this book where repression processes play a much more important part. But perhaps we may now already see the difference between primitive and civilized types of art in a contrast of dynamic trends active in them as well as in the contrast in the feelings produced by them. Civilized art would tend towards maximum gestalt articulation and drain its forms of inarticulate form elements; hence it is by the aesthetic feelings of order and harmony which serve to safeguard a successful effort in gestalt articulation that it will please. Primitive art, on the other hand, would tend towards repressing articulate form elements; its fluid and ambiguous perceptions, though poor in aesthetic pleasures, might acquire a plastic power against which civilized aesthetic form experiences in all their precision may appear flat and insipid. But a direct comparison is impossible because no human being can combine in himself different stages of articulation. A certain stage of articulation, once acquired, does not allow us to partake at the same time in the emotional experiences of a less articulate stage. In any art an inexorable process of articulation transforms the original artistic experience, though this transformation may not be as systematical and gradual as in musical articulation. But all the more, the historian of the visual arts must guard himself against the 'Psychologist's Fallacy' of *retro-relation* and avoid projecting his own articulate form experience into an historical art.

VI

The Order in Time and 'Time-free' Hearing

THE articulation of music and, as we shall see presently, of speech, occurs within the order in time. The conscious ear picks out the articulate ('substantive') tone steps, rhythmical beats, articulate chords, differences between loud and soft (we have not dealt with the articulation of tone intensity owing to its very rudimentary state); at the same time it represses the 'transitive' pitch inflexions, free rhythms, and inarticulate chords which are sandwiched between the articulate tone events. In the discussion of the plastic mannerisms and of the half-articulate 'ornaments' in music we found that the transitive pitch inflexions of the *melody* (glissando, vibrato) and *rhythmically* free ornaments were not lost to perception, but produced as their signal in consciousness various plastic tone colours. We have not yet discussed the structural repression of the 'transitive' chords in the *harmonic* progression (mentioned in the beginning of Chapter I) which may also enrich the harmonic tone colour. We described the 'transitive' chords as being superficially explained by a natural melodic transition between one articulate chord to the next. The polyphonic voices do not fall into a new articulate chord with every step they take; they may make melodic excursions before they agree to fuse again into another articulate chord. Thus a number of transitive chords occur to which the traditional theory of harmony pays no attention. Yet they possess an obvious influence upon the plastic volume of the harmonic sound as a whole. One can 'ornament' an articulate chord by a 'changing note'.

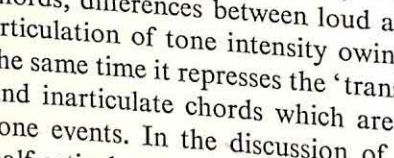

FIG. 5. Changing note.

There the polyphonic voices could have fallen into a consonance quite naturally. But in order to give the harmonic sound a more plastic quality, one of the chord tones refuses to take its proper place at once, but first plays around it in a 'changing note'. The final articulate chord is thus postponed by a series of harmonically meaningless 'transitive' chords produced by that obstinate little melody of the 'changing note' which after a short suspension allows itself to be sucked into its proper place to make up the postponed consonance. The longer the suspension produced by the 'changing note', the more impressive the liberating effect of its resolution into the articulate chord. Again the reward for the insertion of inarticulate transitive tone events is an increase in the plastic volume accruing to the following articulate chord; hence the favour which this harmonic ornament enjoys. For instance, in order to give majestic fullness to a concluding triad, an organist might ornament the third within the triad with a 'changing note' spun out into a little melody playing round the postponed chord tone. If we study our 'internodal consciousness' (William James) while the suspension lasts we will find that the immediate effect of the ornament is to muffle the chord; this is obviously so because transitive chords do not produce harmonic tone colour. But what the transitive chords lack in power seems to be added to the final resolving triad which now sounds forth with solemn majesty. (The change from the muted tone colour to the later sudden increase in plastic volume is even better observed if the passage is played softly throughout. The final chord seems to swell as though a damper had been lifted.)

The student of harmony cannot easily resist the temptation to adorn the bald progression of articulate chords with transitive chords, even in cases where the natural movement of the polyphonic voices does not justify them. Schönberg deplores the intentional use of harmonic ornaments because of his already quoted opinion that transitive chords have a significance of their own within the harmonic structure; he calls the adorning of uninspired writing with harmonic ornaments the 'dressing up of a skeleton like a living body'.

The transitive chords also illustrate the closeness between beauty and ugliness feelings. If a gramophone needle gets stuck in a groove so that a transitive chord or a dissonance sounds forth indefinitely without being duly resolved, their now revealed tone colours are unaesthetic like all inarticulate or half-articulate art forms which are suddenly lifted into conscious perception. But merely reinforcing the transitive chords, as happens in the 'changing note', produces pleasing plastic and 'ornamental' effects. (The same consideration, of course, applies also to a transitive glissando sandwiched between two articulate tone steps. If the gramophone needle jams before an upward glissando can resolve itself into a brilliant top note, a most unpleasant and even ridiculous 'smear' penetrates into our conscious hearing. This is to say, all transitive tone events produce an increase in plastic volume or are 'ornamental' as long as they are only unconsciously heard and do not really break surface; if they should break through completely, then they merely disfigure the articulate melody or harmony; they become 'ugly'.)

That transitive chords should also be able to contribute to the plastic and aesthetic effect of the articulate harmonic chords is significant for another reason. In Chapter X we shall compare the articulation of music with the articulation of speech. This comparison is legitimate because of the far-reaching correspondence between the two types of articulation. Language articulates the different tone colours of vowels and consonants, whilst music articulates its melody according to the pitch (scale) and duration (rhythm) of the sounds. The singular phenomenon of harmonic polyphony in recent Western music, however, articulates 'tone colours' like human speech, this time the tone colours of harmonic chords. We shall later suggest a possible psychological explanation for this abnormality in Western music.[1] In this context, however, another correspondence between harmonic articulation and speech is to engage us; we shall see the sonority of the consciously audible articulate speech sounds is dependent upon the strong repression of inaudible transitive sounds in the same way as a rich harmonic tone colour depends upon the repressed transitive chords.

A very great number of consciously inaudible transitive sounds are sandwiched between the audible articulate vowels and consonants. In the diphthong 'ow' (as in 'now') a hidden transitive 'o' (as perhaps in 'hot') is joining the initial to the final sound of the diphthong. If we try to drawl out the transitive sounds as long as possible we might realize that almost the whole duration of the diphthong is filled with 'impure' sounds of transition which only just touch off from the initial 'pure' vowel and perhaps do not fully resolve into the 'pure' final sound. Yet what we hear consciously is a sequence of two purely articulated sounds with a short, almost imperceptible, transition in between. The drawling out of the transitive sounds between them has an effect which reminds us of a slowly executed harmonic mannerism (changing note); the longer the suspension, the stronger also the plastic effect of the final articulate harmonic sound. Many affected actors who indulge in maximum sonority will (without knowing it) draw out the transitive sounds in a diphthong almost to the threshold of conscious perception; the result will be a considerable increase in sonority, i.e. the plastic volume of the speech sounds. (We are reminded of the commercial violinist who will intensify a vibrato to an almost consciously audible wobble for the sake of an intensely plastic tone colour. These plastic effects are, as always, the conscious signals of powerful repressed inarticulate tone events.)

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[1] See Chapter X.

While it is, to a certain degree, still possible to become aware of the inarticulate transitive sounds in music, the repression of inarticulate speech sounds is almost impenetrable. But we have a simple technical device to bring them to the surface, a device which is of considerable theoretical interest. Their successful repression is dependent on the conscious order within time which is the most important factor in acoustic gestalt articulation. If we destroy the order within time, the articulation as well as part of the repression is also destroyed; the inarticulate transitive sounds will then emerge from the unconscious. This reversal is done by reversing the course of the gramophone needle so that it runs from the centre of the disc towards its periphery, i.e. from its ending to its beginning, so that every sound is reproduced in exactly the reverse order of time.

The destruction of the time order has two effects which are closely interconnected; not only do the transitive sounds emerge, but also the plastic tone colour of the sound as a whole flattens. This goes to prove that part of the plastic sound depended on the successful repression of the transitive sounds. A piece of music rich in inarticulate sounds, as for instance a Viennese waltz melody played on strings, which abounds in smear-like glissandos, will, in its reversed order of time, be changed beyond recognition. A multitude of little smears, grunts, and squeaks obtrude on our attention which previously had been passed over as mere transitive sounds. But also the brilliance of the sound quality, so cherished in dance music, has gone. 'Reversed' music as a rule sounds muffled and flat.

We find the same double transformation also in 'reversed' speech. We can here draw on the careful experimentation undertaken by E. W. Kellogg.[1] Reversed speech sounds impress us as more rapid as well as choked. Their rapidity is explained by the increased number of

[1] 'Reversed Speech', *RCA Review*, V-1.

speech sounds which are audible owing to the emergence of the many previously inaudible transitive sounds into our conscious hearing.

We shall later see that it is often impossible to distinguish between the 'natural' tone colours (produced by the repression of the overtones) and the 'artificial' tone colours of music—and now of speech—which are generated by the repression of inarticulate sounds. The destruction, in reversed speech or music, of the 'artificial' tone colours contributed by the repression of transitive tone events, permits us to isolate the 'natural' tone colours contributed by the overtones which constitute the objective quality of the instrument or human voice. This quality is often astoundingly poor. If the sound of a violin is humorously described as the squealing noise of 'horse hair pulled across the bowels of a sheep' the description may fit the unpleasant experience of the unmusical who is incapable of the proper musical articulation and so retains the ability to hear the quality of the violin as it 'really' sounds.

Nor is it easy to hear the rasping noises made by the human speaking voice unadorned by the sonority imparted to it by the articulation of human speech. I was often struck when picking up isolated bits of a faraway conversation carried along by a gust of wind or an isolated shriek of a child, how little they resembled a human voice. The isolated sounds could have been taken for the grating noise of a rusty door or perhaps of a wheelbarrow. I think we may do great injustice to the vocal powers of natives whose language sounds to us so much like choked gasps and hisses. It is quite conceivable (and of course open to proof or disproof for anyone who has the opportunity of learning the language of these remote tribes) that we miss the sonority of that language owing to our inability to articulate it by the proper selection of articulate sounds and the corresponding repression of the rest as mere transitive inarticulate sounds. There exists no physical or physiological law which would automatically regulate this selection. We need not understand a civilized language in order to pick out more or less correctly its articulate sounds. This is perhaps due to some fundamental kinship of certain civilized languages. (But it still is a familiar experience that a language seems to gain in beauty and sonority once we have taken the trouble to learn it.) Only with a language altogether remote from the network of civilized languages may an attempt at articulation break down completely; and it is there where we are bound to miss the sonority to which we have become accustomed when listening to human speech. We may listen there, perhaps for the first time, to the naked sounds produced by the larynx without its customary adornment by the articulation process of language.

A not dissimilar opportunity is offered to us by reversing gramophone records of human speech. There we can also appreciate how incredibly strong the repression is which hides the 'natural' tone colours of human speech. Kellogg proves in his simple and ingenious experiments that it is altogether impossible to reproduce them correctly. He asked a speaker to pronounce a word already put into the reverse order of time, for instance, to say something like '*N-o-d-n-o-l*' for the original '*L-o-n-d-o-n*', and to take the utmost care in catching and reproducing the same sounds in the reversed order of time. By recording this reversed word and then playing that record backwards, the original order of the sounds should have been restored into the word *L-o-n-d-o-n*. Now it could be tested whether the speaker had indeed used the same speech sounds in his reversed pronunciation of the word. Kellogg reports that the result was astonishing. In place of the intended word a strange conglomeration of sounds emerged which was hardly reminiscent of the original word. Even repeated attempts trying to improve on the previous failures did not appreciably better the effort. Kellogg calls it fortunate if any semblance to the original word was achieved.

We simply do not know what sounds we pronounce in articulating a word. The articulation process produces the illusion of articulate sounds while in fact we utter a long series of inarticulate sounds which are completely transformed in our conscious perception. In Kellogg's experiments this error was duplicated. The failure to catch the original sounds was aggravated by ignorance of what speech sounds one was really uttering when attempting to repeat them in the reverse order. This strong repression of the speech sounds by the illusion of clear and sonorous articulation can only be compared to the almost total repression of the overtones in our hearing of the 'natural' tone colours. In Chapter X, I shall attempt to reconstruct tentatively a possible primeval origin of speech and music. We shall then assume that an archaic thing-free undifferentiated mode of hearing had obliterated the conscious differentiation of 'natural' tone colours and loosened the repression weighing down the overtones hidden underneath. The articulation of human speech, like the gestalt articulation of art, would have arisen as a secondary reaction formation striving to establish a new differentiation of tone colours, this time that of the articulate speech sounds. If we compare our usual differentiation of the 'natural' tone colours or our differentiation of the slow progression of harmonic chords in music with the incredibly rapid succession of speech sounds we must marvel at the selectiveness of our tone colour differentiation in listening to human speech which picks out each vowel and consonant as a separate tone colour. This singular feat of articulation is equalled by the enormous strength of the repression eliminating the transitive speech sounds from our conscious hearing. Yet basically the articulation processes of language and music are the same in spite of the quantitative difference in the selectiveness and in the strength of the repression. It is legitimate to assume that there once existed an archaic language which was neither speaking nor singing, but something of both from which the articulation processes of language and music would have branched off. The comparative slowness of musical articulation and its rigid discipline of system formation gives us the unique opportunity of studying the dynamics of articulation which are possibly common to music and to language.

In the next chapter we shall study the growth of the musical 'language' in its four stages. It is not inconceivable that we might find that the rational word language grows in a similar way if only we were to pay more attention to what happens to its inarticulate transitive sounds.[1] The articulation of any 'language' might transform inarticulate form elements and gradually incorporate them into the existing 'system'. The relentless transformation process to which any language is subject while it is still living may be due to the same coercion which we first observed in the growth of the articulate form language of art. There might go on, unobserved by the surface mind (and certainly by the present science of language), a creative process in the inarticulate transitive sounds pressing upwards against the unstable superstructure of articulate sounds which in turn reacted by drawing up and incorporating ever new inarticulate sounds. In this way the articulate system of speech sounds would renew and enrich itself. Kellogg has given us a simple instrument for experimentation which promises further and deeper insights into the growth of language.

As it is, reversed gramophone recordings are often put to a more light-hearted use, but even then produce results of great theoretical value. Playing familiar records in reverse constituted a standing feature in a humorous programme relayed by the British Broadcasting Corporation. It was used as a sort of puzzle game which made the listeners guess whose instrument or voice these noises represented. When at last the record was run in the normal way and the familiar voice or music began, the sudden recognition of 'the familiar in the unfamiliar' was greeted with laughter. (Freud, in his analysis of the joke, also attributes to the recognition of 'the familiar in the unfamiliar' a laughter-raising effect, and derives the pleasure attendant to this sudden recognition from a saving in mental energy. A somewhat similar explanation may also apply to the laughter-raising effect of reversing a gramophone record, as will be shown presently.)

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[1] The methods of phonology would probably have to be made more subtle in order to account for the evasive 'transitions' between the phonologically acknowledged speech sounds.

In vision, too, a mechanical reversion of the time order in which visual events are shown can produce laughter. This can be done by reversing a film strip. The film action is first shown in the correct sequence. For instance a man is shown running hurriedly towards us; as he seems almost to reach us the film is reversed so that the unhappy man is forced to retrace his steps just as hurriedly as though he were being pulled backwards by some unseen agency. The public might then be moved to hearty laughter. A man running backwards is nothing humorous in itself. Indeed the reversed action is nothing like a 'real' running backwards. The action of the legs and the posture of the whole body will be different. One leans forward if running forward, and backward if running backward. Hence the reversed action of running will appear as wholly unnatural—uncanny rather than funny—as it contradicts the normal body movements; only in conjunction with the previous showing of the normal movement may it become comical. The recognition of 'the familiar in the unfamiliar' by identifying normal and reversed action is indispensable. In our first example of the reversed gramophone disc, too, the demonstration of the reversed performance alone would not evoke laughter. Similarly, the distortions of the caricature are only laughable if we are able to recognize the familiar in the distorted shapes, otherwise we would only perceive distasteful abnormality which again would strike us only as uncanny if nothing else. This impression of uncanniness, by the way, is more closely related to our formula *recognizing-the-familiar-in-the-unfamiliar* than we might think. Freud explains the feeling of uncanniness from the return of a repressed mental content to the threshold of consciousness. We are about to recognize in some new experience an old memory, but we deny its dangerous familiarity by the opposite feeling of strange uncanniness (*Unheimlich, unvertraut*). If we however have accepted the familiar in what first seemed strange and uncanny, a liberating laughter greets the revelation. It might well be that the first glance at a caricature or the first impression of a reversed performance is always a short moment of uncanny strangeness which is washed away and forgotten once we have grasped the identity between the distorted and the original appearance.

The recognition of the familiar in the unfamiliar can, however, be expressed more technically in terms of gestalt-bound surface perception and gestalt-free depth perception. In the third part of my paper 'Unconscious Form-creation in Art',[1] I showed that the recognition of a 'thing' did not depend on identity of abstract gestalt. A thing might offer a multitude of very different abstract form aspects which we need not memorize in order to recognize it in some new aspect. The caricature plays on this independence of 'thing' recognition (thing similarity) from abstract gestalt (form similarity). A good caricaturist distorts every single feature of a face according to some unknown form law. One isolated distortion or leaving part of the facial features untouched by the general distortion of the face would produce an ugly freak in Leonardo da Vinci's manner, with the malformity standing out glaringly and impeding rather than improving the likeness of the caricature. In a good caricature the first distortion of one feature sets into motion a chain of other distortions which are in some way related to each other. They do not fall into a comprehensible pattern (i.e. a pattern comprehensible for our surface mind), but they have the appearance of being consistent and carefully balanced. Try and alter one of the sensitive lines and you will soon see how you have deteriorated the general likeness. A well-balanced caricature is so convincing in its illusion of likeness that one hardly realizes how fundamentally different it is in pure form from a 'correct' photographic likeness. To test this, one has to turn one of the more extreme caricatures upside down and compare the pure form aspect, for instance, of Churchill caricatured as a bulldog with a correct portrait drawn in exactly the same attitude. Not one form detail in the caricature will even faintly remind you of the portrait, though the two drawings are equivalent in likeness. (This goes to prove that the recognition of thing similarity is not dependent on similarity in pure form aspects; the recognition is even possible in spite of far-

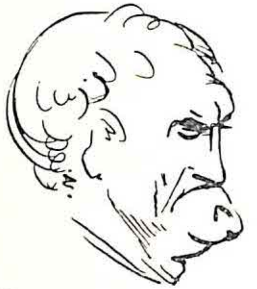

FIG. 6. Unbalanced distortion of the chin (after Leonardo da Vinci).

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[1] *British Journal of Med. Psychology*, XXII (1949), 95.

reaching differences in abstract gestalt. It is doubtful whether our surface mind, bound as it is by the abstract gestalt principle, will ever be able to comprehend how the principle of thing recognition and thing differentiation works.[1])

The comic effect of the caricature might be based on the total exclusion of the gestalt-bound surface mind from the recognition of the likeness. According to Freud a joke baffles the surface mind by its irrational appearance. But the depth mind is able to understand the symbolism of a joke, attracts the useless energy charge of the surface mind and discharges the pirated energy charge in laughter. Similarly in the caricature, the gestalt-bound surface mind is baffled by the distortions of the caricature in which we cannot recognize any known likeness. But the depth mind recognizes the likeness and is able to attract the energy charge, to release it in laughter. The 'baffling' of the conscious gestalt principle may be the cause of laughter in other cases. So the gestalt-free forms of primitive art which cannot be grasped by the surface mind might evoke laughter. As a rule we can no longer perceive the gestalt-free forms of primitive art; they appear stylized through the action of the secondary style elaboration. Only primitive music and dancing have kept their wild and chaotic form. Now it is a well-known fact that the endless glissandos and vibratos of primitive music and the trembling movements of primitive dancing may evoke laughter though they are by no means funny. I myself when I first heard primitive melodies experienced a most disagreeable 'tickling' effect in my diaphragm. This tickling effect could also be explained by a breakdown of surface perception. The civilized listener will automatically try to apply his usual articulation of a melody into definite scale tones and rhythmical beats also to the primitive melody; as this is not possible the mental energy held ready for the effort of surface articulation becomes useless and is shifted into the depth mind which spends it in laughter.

The laughter produced by the tickling of the skin can also be interpreted as a baffling of tactile gestalt formation. Tactile gestalt formations, such as the feelings of a 'rough' or 'smooth' surface, are the outcome of a great number of simultaneous nerve excitations. According to the pattern of these nerve excitations we will experience a surface as smooth or rough. Now the technique of tickling obstructs the formation of a definite pattern which could be fused into one or the other gestalt category of tactile perceptions. The skin is touched in irregular intervals and at irregular spots. There is no definite pattern in these single excitations; hence any attempt at a tactile gestalt formation breaks down; again the energy charge of the surface mind is pirated and released in convulsive laughter.

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[1] See the dualism of 'thing' and 'gestalt' perception in the second part of this book and particularly pp. 145, 247.

Now we are able to recognize that the laughter-raising effect of reversed music, speech, or film strips rests on the same disruption of gestalt-bound surface perception. The order in time is the most important differentiating principle in acoustic perception. Any tampering with the temporal order affects the identity of the conscious gestalt structure. A melody may be changed in rhythm, and may still remain recognizable. If, however, the succession of its single tone steps is reversed or its sequence is in any other way altered, the melody loses its identity—for conscious surface perception, that is. Similarly the reversion of the time order in the words of a whole sentence or in the speech sounds of a single word also destroys their identity. If, therefore, a gramophone recording or a film strip reverses the order in time, the recorded event becomes unrecognizable for surface perception. But its laughter-raising effect demonstrates that the depth mind is not bound by the surface order in time and can identify the event without regard to its temporal order, a conclusion of very far-reaching significance. (We shall see in our discussion of thing-free perceptions in the visual arts that certain structures in modern painting point to an undifferentiated depth perception which can perceive without regard to the order *in space*. Macro-physics and micro-physics had to give up the common-sense concepts of space and time in their voyage into the worlds of the stars and of the atom; are we to wonder, then, that we too have to leave behind our 'rational' concepts of space and time as we descend into the depth of our own mind?)

In the perception of a joke too the depth mind is able to perceive the word material without regard to its order in time. Freud quotes the example of a joke which reverses the temporal order of the words to express each time a different meaning. A. A. Brill's example in the English translation is not quite so simple.[1] Brill's example runs like this,

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[1] *Wit and its Relation to the Unconscious* (T. Fisher Unwin, 1916), p. 36. The joke in the German original (*Der Witz und seine Beziehung zum Unbewussten* (Franz Deuticke, 1912), p. 23) runs as follows: 'Das Ehepaar X. lebt auf ziemlich grossem Fusse. Nach der Ansicht der einen soll der Mann *viel verdient* and sich dabei *etwas zurückgelegt* haben, nach anderen wieder soll sich die Frau *etwas zurückgelegt* and dabei *viel verdient* haben.' Freud calls it a diabolically clever joke.

'Two witty statesmen, X and Y, met at a dinner. X, acting as toastmaster, introduced Y as follows: "My friend, Y, is a very wonderful man. All you have to do is open his mouth, put in a dinner and a speech appears, etc." Responding to the speaker, Y said: "My friend, the toastmaster, told you what a wonderful man I am, that all you have to do is open my mouth, put in a dinner, and a speech appears. Now let me tell you what a wonderful man *he* is. All you have to do is open anybody's mouth, put in his speech, and the dinner appears." '

The mouth is treated as an automaton which produces a speech on insertion of a dinner, or a dinner on the insertion of a speech. The unconscious language function, in the act of perceiving, 'reverses' both the order of the words and the order of the automatic action. As this reversion produces a symbolic expression of an aggressive meaning (that a speech by Mr. X turns one's stomach) the reversion is allowed to break surface and to become a joke. (A more detailed discussion of the interaction between the rational language function of the surface mind and the depth mind's undifferentiated language function will be given in Chapter VIII.)

It is not quite precise to say that the depth mind's undifferentiated language function 'reverses' the order of words in the act of perceiving. It would have been more to the point, though somewhat more heavy-handed, to have said that depth perception is undifferentiated with regard to the surface order in time; no playful activity in twisting about the rational flow of language is needed.

This becomes clearer when we examine again the laughter-raising effect of a reversed action in perceiving a film or listening to a gramophone recording. While the surface mind, bound as it is to an articulation within the order in time, cannot recognize the identity between the original and reversed action, the depth mind is able to perceive the action without regard to its surface order in time. Thus the surface mind remains unresponsive while the depth mind can attract and spend its energy charge.

This 'time-free' mode of depth hearing might be reached when consciousness sinks on to a lower level during the gestalt-free perception of artistic activity. A musician who cannot be suspected of affecting mystic experiences, Mozart, with touching simplicity, described the gradual disintegration of surface time in conceiving a new composition. Mozart appears to have finished his compositions in his mind before putting them down in writing. He reports (quoted by William James, *ibid.*, p. 255 n.) how first bits and crumbs of the piece come and gradually join together in his mind; and the soul getting warmed to the work, the thing grows more and more . . . 'and I spread it out broader and clearer, and at last it gets almost finished in my head, even when it is a long piece, so that I can see the whole of it at a single glance in my mind, as if it were a beautiful painting or a handsome human being; in which way I do not hear it in my imagination at all as a succession—that way it must come later—but all at once, as it were. It is a rare feast! All the inventing and making goes on in me as in a beautiful strong dream. But the best of all is the hearing of it all at once. . . .'[1]

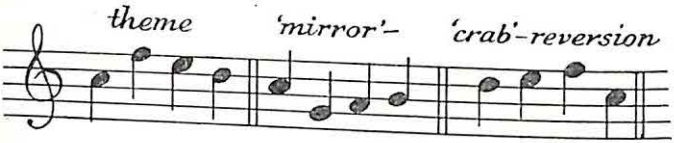

FIG. 7. 'Mirror'- and 'crab'-reversions of a theme.

This time-free mode of depth hearing is reflected in the structure of irrational art, i.e. in very modern and very old music. The 'crab' and 'mirror' reversals of the time order, reversing the sequence of consecutive tones, or turning a theme or a whole musical piece back to front,[2] is typical of medieval music, of some of Bach's latest fugues and today of Arnold Schönberg's twelve-tone music. It is characteristic of the fundamental misunderstanding current in art appreciation that these highly involved time reversions are often dismissed as mere intellectual artistry which had nothing to do with an emotional use of musical form, while the use of the time reversion may really represent a break-through of deeply unconscious irrational modes of perception. The great J. S. Bach, emotionally a stranger in the century of rational enlightenment, used the 'mirror' reversals of a melody in an exquisite manner. His *tour de force* was an exact 'mirror' reversal of the whole polyphonic structure of a fugue in his 'Kunst der Fuge', an unbelievable achievement. Nevertheless, the fugue in reversed order sounds beautiful; its melodic and harmonic development is natural and expressive.

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[1] In Chapter I mention was made of Schönberg's opinion that our unconscious hearing appreciated the most rapid tone events which evaded conscious hearing. Blake-Ramsey, *Perception, An Approach to Personality* (New York, 1951), Chapter IX, refers to experiments which prove that our unconscious vision reacts to rapidly exposed forms which are missed consciously. This, to my knowledge, is one of the few experiments establishing the fact of unconscious perception processes.

[2] The 'crab' reversion (musicologists usually speak of *in*version) is a total reversion from back to front, in the 'mirror' reversion each single tone step is reversed; instead of moving from 'high' to 'low', the 'mirror' melody will move from 'low' to 'high' and vice versa, which in musical notation produces a mirror image of the original melody.

For a long time the attitude of the public was one of mistrust. True, one could discern all these subtleties by looking at the written score; but could one *hear* them in actual playing? So it was suspected that Bach, aware of his unsurpassed mastery in fugue construction, indulged in these and other artifices in order to show his virtuosity in handling fugue themes. They were meant to be studied visually, but not to be listened to.

The distrust is understandable. Bach's 'mirror' reversion of a whole fugue and similar intricacies of his fugue constructions may well strike us as uncanny because it is wholly impossible to achieve such a technical feat by a conscious effort. Surface perception is bound by the articulation in the order in time; it cannot, therefore, while listening to a piece of music, realize how it would sound in the reverse order. It would, of course, also fail to recognize its identity after reversing it. We cannot imagine how Bach could have written his first melody while paying equal attention to its effect in the 'crab' or 'mirror' time order. Was he not forced to turn the melodic sequence around each time he tried to add another tone? This cannot possibly be the method in which an inspired composer could have worked. The whole accusation of intellectual artificiality breaks down if we consider the intellectual mind's inability to grapple with such form problems. We must arrive at a different conclusion. In order to compose a music which is equally expressive whether heard in the normal or in the reversed order of time, it is necessary to comprehend both time orders in a *single* undifferentiated act of perception, in that state of a time-free perception perhaps which Mozart has so well described for us. Far from being a product of a cool rational intellect, the intricacies of Bach's fugue construction point to the decisive participation of the 'time-free' depth mind in the act of creation.[1] This theoretical argument is fully borne out if we care to listen to Bach's music. The ecstatic elation expressed in it will convince us that its inspiration must indeed have come from the composer's innermost soul.

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[1] Arnold Schönberg (*Style and Idea* (1951), p. 113) reports that he was worried about the apparent absence of relationship between the two main themes of his Chamber Symphony and thought of deleting the second theme. But twenty years later he discovered that the second theme was a 'crab' reversion of the first; it was 'of such a complicated nature' that he doubted 'whether any composer would have cared deliberately to construct a theme in this way; but our subconscious does it involuntarily . . . a musical creator's mind can operate subconsciously with a row of tones regardless of their direction'.

Schönberg went far beyond the mere 'crab' and 'mirror' reversions of the time order. His twelve-tone music varies incessantly the same 'theme', i.e. the twelve-tone row itself. But his theme can appear in any permutation of its time order as long as all twelve half-tones of the chromatic scale have made their appearance, whether as three chords (each containing four tones to make up the twelve-tone row) or as a successive melody in which the twelve tones may follow each other in any combination. But no tone may reappear prematurely before the other (eleven) tones had their due turn. This last and most important

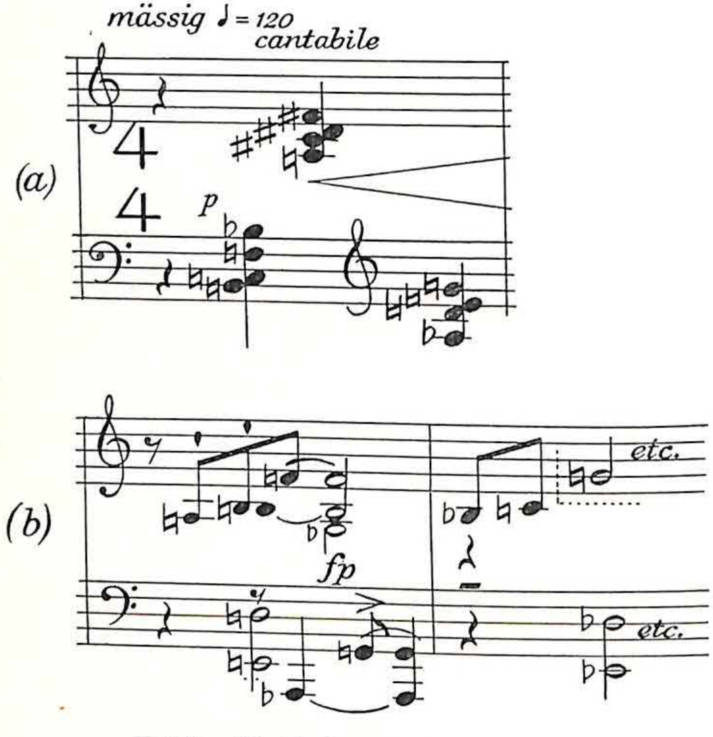

FIG. 8. The Twelve-tone Row arranged
(*a*) in three chords
(*b*) as a melodic sequence
(from A. Schönberg, Klavierstück, Opus 33 A)

law is said to bear out the loss of the tonality feeling in our time. In tonal music one single tone determines the 'key' of the piece of music. It fights upwards against the rivalry of the dominant and downwards against the subdominant. From this dynamic tension a tonal piece of music derives its balance. Schönberg maintains that this feeling of balance has lost its vitality. For most listeners it will be entirely immaterial whether or not a piece of music concludes in a different key than in which it started, an event which would have been of great significance for Beethoven's contemporaries. The tension between dominant and subdominant has lost its inspiring force. Schönberg introduces a new harmonic tension by proclaiming a law of absolute equality between all the twelve tones of the chromatic scale. Hence no tone must be sounded twice before all the other eleven have had their turn. If this law is broken, the balance between all the twelve tones is upset. The twelve tones may follow each other in any order of time, as long as their sequence (the twelve-tone row) is complete before another one is started. Thus it could be said that all twelve-tone music, whether written by Schönberg or by one of his followers, varies the twelve-tone row as its single theme in endless permutations of its time order.

Schönberg's use of twelve-tone row has been attacked on similar lines as Bach's fugue constructions. It was supposed to be intellectual; its intricacies could be *seen* in the written score, but not *heard* in the actual performance. Some of his critics who had accepted his beginnings refused to follow him in this altogether undifferentiated use of the twelve-tone row. R. S. Hill[1] says: '. . . obviously such distributions of the row could not be sensorily perceived and intelligently grasped as motival structures however much practice the listener may have had in hearing such music. . . . Tones, after all, cannot be arbitrarily related. A natural melodic movement is achieved only by obeying fundamental psychological laws.' (From the context it becomes probable that Hill has in mind the teaching of the Gestalt Psychologists.) This type of argument reminds one of a typical mistake committed by traditional Aesthetics. Aesthetic laws were established first; when they did not fit the facts of a 'modern' art, the laws were not modified to suit the newly discovered facts, but the artist was reprimanded for having offended against fundamental aesthetic laws.[2]

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[1] 'Schönberg's Tone-Rows and the Tonal System of the Future', *The Musical Quarterly*, XXII-1, 31.

[2] See Chapter XVI for the pseudo-scientific 'externality illusion' creating the 'laws' of art, and 'moral' indignation often displayed in discussion of aesthetic 'laws'.

Mr. Hill's comments are correct in so far as the rational surface mind can neither create nor perceive directly whether or not Schönberg's law of equality has been complied with. But the very impossibility of this task may ensure that perception is pressed down to an undifferentiated 'time-free' level where the surface order in time no longer has validity. Such 'repressed' perceptions are not without influence on our conscious experience. We have suggested, and shall later show in greater detail, that any repressed perceptions betray themselves through the conscious signal of a plastic feeling. In the harmonic structure of classical music the occurrence of the forbidden 'parallel' fifths or octaves are not discerned as a melodic movement. Often the parallel movement occurs in the middle voices which are only perceived as a harmonic event. But the teacher of harmony has a good means of discovering the offence. As already mentioned, the harmonic sound as a whole seems to cave in and the balance of the harmonic structure is disturbed. The very same signal loudly announces any offence against Schönberg's law of equality between the twelve tones. If a tone has been left out or another tone has been prematurely repeated outside its tone row, the harmonic volume of the whole structure will sag. I have little doubt that the experienced composer himself will be guided by this sensual quality of the harmonic sound and need not pay undue attention to 'counting out' the twelve-tone row.

The study of Bach's and Schönberg's mastery reassures us on an important point. I have maintained that only from the point of view of surface perception which cannot grasp any other structures but those complying with its own gestalt principle can the depth mind's mode of form perception and form creation be described as 'inarticulate, chaotic, vague', etc. Now we see that the working of the depth mind is indeed far from chaotic and may excel in its purely technical achievement the gestalt-bound functions of the surface mind; it can adapt itself to the technical intricacies of Bach's fugue construction as well as of Schönberg's twelve-tone row. It can thus give service which the rational surface mind is unable to render. The great artist is able to impose discipline on his unconscious mind and so harnesses its faculties of which we know as yet so little.

The concept of the depth mind's superiority in undifferentiated perception has occupied us before. It is easy to see that the secondary articulation processes working on these undifferentiated perceptions cannot do them justice. As they narrow down their too wide frame of reference the censorship of the superego in co-operation with the process of secondary gestalt articulation may completely distort their meaning for the surface mind; they become merely obscure 'symbols'. We saw in the second and third chapter how the gestalt-free perceptions of the depth mind contained 'too general' things and images which could be visualized only as a superimposition of several adult concepts into the undifferentiated perception. As the secondary gestalt elaboration sets to work it cannot but 'condense' this superimposed perception into a nonsensical though fully articulate 'condensation' (see p. 53). The other nonsensical features of symbol formation can be interpreted in the same way. The 'representation by the opposite' would also be made possible by the undifferentiated structure of depth perception. Freud discovered that the unconscious mind did not differentiate the antithetical meanings for instance of high and low, strong and weak, etc.[1] The 'representation by the opposite' would select from the two antithetical meanings just that which fails to make sense for the surface mind, again in compliance with the superego's censorship. Yet for the undifferentiated depth mind the antithetical meaning makes sense just as before, and the superego's censorship does not affect the symbol's understandability for the depth perception. We may now recognize that those secondary elaborations are not typical form products of the unconscious mind (though they still speak a language which is understood by the unconscious mind), but that they are secondary techniques of 'translation', subject to the superego's censorship which makes use of the ego's secondary articulation processes.

It might become necessary to revise the theory of symbol formation from this point of view. Symbols are understood by the depth mind because they still fit into its wide frame of undifferentiated reference, but the symbols themselves—i.e. the substitution of one object for the other—would be wholly the work of the surface mind; only for the differentiating surface mind is the symbolic object differentiated from the original object which it now merely 'symbolizes'. But perhaps we have to make here a distinction between the symbol as a rigid neurotic symptom and the symbol as part of a flexible living 'language' which enters all the creative activity of man. Adrian Stokes in his writings on Aesthetics where he applies Melanie Klein's theories to a better understanding of our artistic experience, stresses the flexibility and mutual interchange between symbols as part of artistic creation.[1] The artist tries to reconcile the aggressive and self-destructive urges within himself by fitting his symbols into an organic whole. (A neurotic rigidity of symbol formation may well hinder such reintegration.)

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[1] See for the unconscious antithetical symbolism of extreme perspectivic distortions, Chapter XII, p. 181.

Dr H. Segal,[2] a psycho-analyst who has given a great deal of attention to creative symbol formation shows that the needed flexibility in the use of a symbol (which flexibility permits the use of the symbol as an element in the artistic form language) depends on our ability to renounce unconsciously the original object; this renunciation happens under the immediate influence of self-destructive Thanatos urges. Hence, in my opinion, the neurotic rigidity of symbol formation comes from an unconscious refusal to give up the object. The schizophrenic (it was in studying schizophrenia that Dr Segal came to be interested in creative symbol formation) treats the symbol like the object it symbolizes.[3] Now by our renouncing the object, the symbol becomes flexible and ready to be creatively combined with other symbols into the artist's, scientist's, religious mystic's, etc., internal world of phantasy, thus allowing form differentiations of a higher order.

We have seen that this creative use of the symbol is made possible by the alternation of consciousness between different levels of the mind. In the gestalt-free state of consciousness, the symbol, freed of its rigidity, reassumes its original undifferentiated structure and enormously widens its frame of reference. This alternation between gestalt-bound (rigid and static) structures and gestalt-free (flexible and creative) structures can be seen as dynamic shifts between different layers of perception or, in the last abstraction, as a struggle between the basic form principles of differentiation (Eros) and Thanatos (undifferentiated entropy). Dr Segal shows that the action of the Thanatos urge, in destroying the rigid object significance of the symbol, is a more specific manifestation of the omnipresent self-destructive Thanatos urges. Dr Segal has allowed me to state her theory in her own words. She links up the creative use of symbols with the acceptance and later overcoming of the Thanatos urge. 'This death instinct leads to a feeling of disintegration of the internal object and the self. When in the child's development the stage has been reached where the object and the ego are integrated and felt as a whole (the "depressive position" according to Melanie Klein) the disintegration leads to a painful tension and thus to a desire to reconstitute the object and the self into an integrated whole. The aesthetic feeling is satisfied if the work of art, as a symbolic reconstitution of the object and the self, embodies and expresses both this painful tension and its successful resolution through an integrating use of symbols.'[1]

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[1] *Inside Out* and *Smooth and Rough* (both Faber and Faber, 1949).

[2] 'A Psycho-analytical Approach to Aesthetics', *Intern. J. Psycho-anal.* (1952), XXXIII-2.

[3] He may refuse to play the violin because he does not wish to 'masturbate' in public.

My own theory of the aesthetic feeling deals only with the technical structure of perception as an ego function and its alteration in the interaction of Eros and Thanatos; the aesthetic feeling accompanies the 'reconstitution' of the disintegrated surface perception. Dr Segal is able to show that with the true artist the alternative disintegration and reconstitution of surface perception is part of a much farther-reaching process of disintegration and reconstitution within the self. It would be in such a case that the aesthetic feeling (incumbent on the reintegration of surface perception) ceases to be a merely pleasant sensual pleasure and becomes one of the fullest and deepest experiences of which the human mind is capable.

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[1] We shall see in our analysis of 'thing' perception that the artist and the scientist detach their libidinous interest from the things in the external world. The primary phase of creativeness is therefore a phase of thing or object destruction (apart from the already discussed gestalt destruction). A corresponding secondary process of thing reintegration (secondary 'reification') not only re-establishes thing perception, but also the artist's and scientist's libidinous interest in the external world.

VII

The Four Stages of the Articulation Process

LOOKING back through the history of harmonic articulation, one sees that the sense of harmonic beauty has been constantly changing as time went on. We have so far distinguished three stages. According to Schönberg's profound theory of harmonic beauty, a new chord begins its life as an altogether hidden and inarticulate 'transitive' chord and as such remains outside the harmonic system; it seems fully explained as a melodic accident. Later the new chord is allowed to appear half-concealed and half-articulate as a 'dissonant' chord which needs still to be explained by the melodic device of preparing and resolving a dissonance. Without this melodic context the dissonance sounds jarring and unaesthetic. But the explanation of the dissonance as a melodic 'accident' (see Chapter I, p. 6) has not even fooled the musical theorists and the dissonant chords are already integrated into the system of classical harmony. The dissonance is 'ugly' only in the classical harmonic style if it is stripped of its melodic disguise; then—like any half-baked prematurely exposed form element—it is rejected by the surface mind. In the third stage of harmonic articulation the new chord is accorded the rank of a consonance and can stand on its own without melodic disguise. Today after the passing of the classical harmonic system of tonality these distinctions seem out of date. Dissonances are freely applied just like consonances and we tend to enjoy their 'bite' more than the all too polished smoothness of consonances. This state of harmonic hearing is often deplored. Yet, as we shall later see, it corresponds to a fourth stage in the artistic articulation process when overripe aesthetic form elements (here the consonances) become neutral 'counters' without emotional or aesthetic value and are at last discarded. Yet this might not be the end. In poetry, a new poetical word may lose its currency as an emotional and aesthetic element of the poetical language; it has thus become a neutral 'counter' and might live on as part of the everyday language from where it can possibly be retrieved later. (In Chapter VIII we shall mention also the case of a once 'witty' word which now, with its witty colouring worn off, has become respectable as a rational symbol of everyday language.)

Before we can deal effectively with the single stages of the articulation process in music, beginning with harmonic articulation, we have to refer to an important psychological obstacle in the way of a purely psychological interpretation of harmonic articulation; it is the 'externality illusion' of the artistic experience, the full stature of which we shall come to recognize in the analysis of 'thing' perception treated in Part II. We have a general tendency to project the source of our artistic experience from our internal world of the mind into the external world of physical facts. We have met with this tendency as an obstacle in the path of a purely psychological explanation of the aesthetic feeling. It so happens, for a reason which we shall come to understand better later,[1] that we are particularly reluctant to accept our distinction between the consonant and dissonant harmonic chords as purely mind-made. If it is put to us that a chord which today sounds consonant has sounded to our ancestors as dissonant, we will be tempted to dismiss the former way of hearing as contradicting acoustic laws of hearing. If the old failed to discover the consonance which falls so pleasantly on our ear, *their* power of distinction must have still been imperfect. But as in other cases, it was not that our forebears were hard of hearing, but our 'externality illusion' and perhaps our fatal tendency to retro-relate our own way of perceiving back into historical times does not allow us to appreciate past periods of art.

Schönberg's psychological theory of harmonic beauty gains added significance because it leads to a general theory of musical articulation applying equally to the articulation of new chords, scale tones, or rhythmical values (I am neglecting the rudimentary articulation of tone intensity between *piano* and *forte*). We can say that new elements of the scale, rhythmical or harmonic systems would occur first hidden away in 'transitive' inarticulate passages; from there they would be gradually picked out by the conscious ear. In becoming first half-articulate, they undergo drastic aesthetic changes, either sounding 'ugly' (like the dissonance) or 'ornamental'. As the articulation process proceeds, their aesthetic colouring fades until in the end the new form element becomes a neutral 'counter' which can be used in any context. This is, in short, the whole story. But it is not quite so easy to follow this process in detail in the history of every musical system. We have sometimes to conjecture certain intermediate stages helped by the full analogy which otherwise exists.

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[1] The tone colour illusions of music belong to the realm of 'thing' perception where the externality illusion becomes almost insuperable; see for the vicious 'externality illusions' adhering to tone colour perception, Chapter XVI.

Only the evolution of the most important musical system in European music, that of harmonic chords, can be followed in detail within the written history of music. The evolution of the seven-tone scale from a more archaic five-tone scale can only be reconstructed from the rudimentary five-tone structure of some Gregorian hymns (this excellent method was discovered by J. Yasser). We shall see that Yasser's findings happily agree with Schönberg's interpretation of harmonic articulation. This agreement is most encouraging because it is most unlikely that these two thinkers, so different in their approach and method, should have been at all influenced by each other. Lastly, another music historian, Wolf, has investigated the origin of new rhythmical measures in medieval music and, also quite independently, arrives at conclusions bearing out the general law of artistic articulation.

Johannes Wolf (quoted by G. Reese, *op. cit.*, p. 283) traced the origin of new rhythmical measures to inarticulate 'ornamentation'. The early medieval music proves its lack of rhythmical articulation by declaring any rhythmical movement outside a limited range as being *ultra mensuram*, i.e. beyond measurement. Wolf showed that, in notation at least, the shorter rhythmical measures were apt to begin life as inarticulate (*ultra mensuram*) 'ornaments' decorating the longer ones and only gradually achieved independence. We recognize the analogy between this description of rhythmical articulation and Schönberg's interpretation of harmonic articulation. In either process the new form element appears hidden in an inarticulate transition sandwiched between articulate elements until conscious hearing gradually picks it out from its hide-out and integrates it into the existing articulate system. The 'ornament' stands, as we have shown in the third chapter and elsewhere, halfway between a fully inarticulate and fully articulate form. What we call today a musical 'ornament' is usually still inarticulate in its rhythm but already articulate in its scale step (for instance the shake, arpeggio, etc.). The aesthetic feeling of 'ornament' indicates a still virulent state of the articulation process and an undiminished dynamic tension between the forces of articulation and repression. Hence, it can be said that the new articulate form element developed from amidst an 'ornament'. When the articulation process is completed, its 'ornamental' quality fades as it is no longer needed to support and uphold the progress of the articulation.

In the transition from a five-tone to the modern seven-tone scale system, Yasser could also observe a gradual detachment of the new tone from an inarticulate 'ornament'.[1] The more archaic five-tone scale system lacks the third and seventh tone step of our modern seven-tone scale. Folk-music often preserves the archaic five-tone structure with its characteristic gaps in place of the third and the seventh. The five black keys of a piano represent such a five-tone scale based on C sharp. Hence Scottish folk melodies can often be played using only the black piano keys.

Yasser found that many Gregorian hymns showed exactly the same structure; the gaps are filled by 'ornaments' in anticipation of the future still missing scale tones. These 'ornaments' were both inarticulate in scale and rhythm so they could best be compared to a smear or a wobble which slurred over the gap in the scale. From these transitive ornaments conscious hearing would have gradually picked out the missing tone steps and in time incorporated them into a complete seven-tone system. Yasser could observe how the place of the former ornaments was, in later versions of the same hymns, already filled by the new articulate scale tones. Their 'ornamental' character fades as soon as the process of articulation is complete; then the new scale tone turns into a neutral 'counter' which can be fitted into any melodic context.

Unbelievable as this may seem to us we must assume that during the intermediate stage the future new scale tone may have already sounded in a way which would be clearly distinguishable to the modern ear, yet for the weaker articulation of the Middle Ages it would still not have been more than an inarticulate slur between the scale tones already known. But let us remember, a passage of discordant chords strung out between a few rare articulate consonances which our modern harmonic articulation cannot fail to pick out, would—according to the evidence of the medieval literature—remain a mere 'transitive', inarticulate connexion between articulate chords. Even at a time when the seven-tone scale was firmly established, medieval hearing appears to have preserved the ability (it *is* an 'ability' as well as a weakness) to treat a sequence of articulate scale steps as an inarticulate slur or wobble. Reese is puzzled by Franco of Cologne who describes an ornament, the '*plica*', which to our mind would alternate between *two* scale tones, as a *single* tone divided 'into low and high'. In such a way we ourselves may describe a totally inarticulate vibrato, but never a melodic movement within two articulate scale tones. Reese exclaims: Franco 'shows that the device was not recognized in his day as consisting of two notes, but, impossible as it may seem according to modern conceptions, of one note proceeding up or down' (*ibid.*, p. 283 *et seq.*).

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[1] Yasser, J., *A Theory of Evolving Tonality* (1932).

Yet even in our time the articulation of pitch is not so unambiguous as we may like to think. An exact acoustic analysis of singing demonstrates the astonishing fact that we care only to give the most conspicuous tones within a melody their exact scale pitch while the rest remains more or less 'free' and inarticulate. This, of course, does not mean that we are just negligent, but that our articulation of a melody moves far oftener in the twilight between articulate and inarticulate states than our conscious hearing would have it. The correcting action of the gestalt process (its bump-erasing and gap-filling function) will smooth all these inarticulate deviations into what seems a fully articulate progression of scale tones at their precise pitch. We do not really possess a fully articulate music and our hearing is not quite as far removed from an inarticulate 'primitive' state as we might think. If a form event is withdrawn from immediate conscious attention even quite slightly, depth perception will set to work and impress upon it its inarticulate structure; the relapse into a half-articulate state of form events outside the focus of conscious attention would not so much be the result of mere negligence or of relaxed attention, as the outcome of the always present dynamic tension between the opposing tendencies towards articulation or repression. Because the articulation of our scale system is now assured we have lost the sensitivity for finer gradations in articulation. In the Middle Ages, however, when the scale system was not quite so safely established, the musicians might have been more discriminating. When articulate scale tones were used within a fleeting 'transitive' ornament, such as the *plica*, and so tended to relapse into a half-articulate state, the still more sensitive ear of the medieval would have refused to project the missing precise pitch into them. His musical experience is then more correctly described as that of a single tone 'moving up and down' in the manner of the modern vibrato.

The upheaval of modern art has encouraged experiments with more highly differentiated scale systems. Some modern musicians are exploring the artistic possibilities of dividing the octave into units smaller than the twelve chromatic half-tones, for instance by subdividing them into quarter-tones, etc. Such refinements of scale hearing are not beyond the ability of a present-day musician who cares to train his ear. But he would still be far from a hypothetical future musician whose hearing would be already fully accustomed to articulating smaller scale intervals. Such a musician, in listening to a musical gramophone recording of our time, might be forced to articulate a vibrato (which to our hearing is still a single tone 'moving up and down') as a distinct shake between two articulate scale tones. Music performed on instruments with rigid pitch like our piano, he could only hear as a melody taking giant strides and leaping over several smaller scale intervals with each step, a music of simple, almost cyclopic grandeur. Our allegedly so highly articulate music would have then acquired a 'stylized' monumentality common to all 'primitive' art, an impression which could not but deaden a future musician's sensibility to the finer emotional shadings expressed today in our music; a saddening reflection for the musical enthusiast who would be prepared to give Beethoven the glory of having expressed human emotions in immortal form.

Not only the single elements (tones, rhythmical measures, chords) pass through various stages of articulation, but also the musical systems themselves. Today the scale tones of our scale system are independent highly flexible units. Only the composer's form feeling prescribes their sequence in the melody, the scale system itself does not impose any discipline; they are free 'counters'. This was not always the case. Just as single scale tones develop from ornaments, so an archaic scale system could consist wholly of ornaments. Idelsohn (quoted by G. Reese, p. 10) describes an archaic scale system (*mode*) which did not consist of many single tones but of stereotyped little motives. 'These motives have different functions. There are beginning and concluding motives, and motives of conjunctive and disjunctive character.' The composer cannot, therefore, use the single scale tones freely, but is restricted to arranging these motives with a few embellishments and modulations of his own invention. Only later did the single scale tones detach themselves from their rigid melodic context to start an independent life of their own so that the tension inherent in their intervals can now be freely used. This is undoubtedly a great step forward, due to the articulation process which always tends to pick out new form elements from their original context.

A very similar development has recently taken place in the harmonic system of chords. The classical theory of harmony did not allow the free stringing together of chords in a progression of different harmonic tone colours as it is possible today. Already the necessity of 'preparing' and 'resolving' dissonances by putting them into a melodic context, which made their occurrence seem a melodic half-accident, prescribes the use of stereotyped little 'motives' in the succession of consonances and dissonances. There exist quite definite harmonic motives of a 'beginning' and 'concluding' character. The key must be stated in the beginning. The so-called theory of harmony unashamedly prescribes the use of 'concluding' harmonic formulae.

Today the aesthetic quality of the consonances begins to fade as an unmistakable sign that the harmonic articulation process has reached its final stage. Dissonances and altogether harmony-free chords are used freely as independent harmonic tone colours just as the classical consonances. All chords have become 'counters' which are freely strung together, fully exploiting the tensions between all possible chords just as the scale tones, after being freed from their motival context within a '*mode*', could exploit their mutual tension. Yet the freeing of the harmonic tone colours is often deplored as the chaotic disintegration of all harmony. While, in retrospection, the liberation of the scale tones from the motival use is accepted as progress, we do not yet appreciate the freedom which the fall of the classical harmonic system has brought us.

Schönberg, at the very end of his remarkable book, looks forward to a kind of 'melody' which strings together different tone colours as our present melody joins tones of different pitch. But is not today's free stringing together of harmonic chords already such 'melody' of tone colours which requires a deeper sensibility than a conventional motival use of harmonic tone colour? The alleged passing of harmonic music in our day would represent the ripest stage a system of articulation can achieve. We must not forget how young our harmonic articulation really is in comparison with our old scale system. The aesthetic feelings of beauty and ugliness differentiating the consonances from more discordant chords may have done their duty in reaching this last level of articulation and are so allowed to fade away, leaving behind the present undifferentiated, 'chaotic' state of harmonic tone colour articulation. But the chords still have different tone colours, just as the single scale tones have their different pitch, and they establish tensions between each other, in analogy to the intervals of the scale tones. Why ask for 'laws' in their use as free 'counters'?

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It would be the ultimate fate of any artistic invention to be torn from its context and to be used as an independent 'counter'. This is artistically fruitful as long as new tensions are established in that 'inbreeding' between aesthetic form values in which Sir Herbert Read sees the independent function of aesthetic values. Indeed we see that, for some unknown reason, the aesthetic forms, after being torn from their context in a work of art, may be able to retain some of their previous tension for a while, just as a plant can live for a short time after its roots have been lifted from the soil. But unless the lifted art form is fitted with others into new tensions, it soon loses its expressiveness altogether. I am introducing here an attempt at aesthetic judgement which so far I have tried to keep out of our impartial contemplation of art form, good or bad. Yet, the misuse of fully articulated aesthetic form elements as rigid independent 'counters' would be a psychological criterion of the uncreative non-artist.[1] We would call uncreative the commercial playwright who lifts an effective 'dramatic situation' from its context without recombining it with others according to their manifold unconscious associations. But even after being altogether uprooted the 'dramatic situation' will not fail to impress for a while as an isolated 'counter'. (From the viewpoint of my dynamic theory of the aesthetic feeling this endurance of the aesthetic effects is not easily explained.)

'Fashionable' shades in the textile trade may also be such short-lived counters. Commercial art is a sideshow of art evolution in general, though its development may be out of step by a year or so. New art might produce a new clash of colours which may at first be felt as unpleasant. But after a time it is felt as pleasant and is 'lifted' from its context as an isolated effect, ultimately to be used as new fashionable colour contrast in women's clothes or in exhibition display. There is nothing wrong in this somewhat trite fate of new form elements in art. It is little known that many innovations of commercial art were lifted from Picasso's form inventions and he thus exerted an influence on the general public's taste such as no artist ever done before. The unparalleled form creativeness of our time can afford, and indeed needs, this constant commercialization of its products. Perhaps even the 'bad' artist has his useful social function in the great supra-individual process in which the artist only sets into motion the complex secondary processes of articulation in the public's perception. Without 'bad' academic or commercial art there might be no truly creative art today.

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[1] One may remember here my description of a flexible creative use of symbols as against the rigidity of the neurotic symptom. The creative use of the symbol would detach it from its rigid (articulate) rational or aesthetic function and reintroduce it into the melting-pot of inarticulate vision where it can recombine with other symbols similarly inarticulate and flexible.

In poetry the tendency towards using words as rigid 'counters' is particularly strong. The beautiful sound of an isolated word is perhaps the best example of an aesthetic effect which has—for a while—become independent of its poetic use. Most probably it owes this beauty to the many unconscious associations given to it by its previous inspired use. The 'bad' poet will string together words for their isolated beauty without sensibility for their many unconscious interconnexions. I understand that the technique of Chinese poetry makes such a misuse difficult. We may call Chinese poetry 'polyphonic'. Owing to the paucity of the Chinese words every single word possesses very many meanings; this extreme ambiguity does not create any misunderstanding in everyday conversation. The rational surface meaning is quite articulate. But in the poetic use of the ambiguous words the poet has to consider—automatically, I presume—the associations which are created by the possible other meanings of the words, so that his poem really acquires a polyphony of meanings which run like latent dream thoughts under the manifest meaning of the poem. The Western poet uses less malleable material. Yet a truly creative mind has a greater sensibility for those alternative latent meanings into which the unconscious associations of the words join, according to an automatic discipline, which is quite comparable to the polyphony of Chinese poetry. The 'bad' poet would cut beautiful words loose from their unconscious roots as the commercial playwright uses the effective dramatic situation which he borrows from others. The beautiful words thus used as isolated and rigid counters will, in time, fade until their emotional edge becomes blunted and they are levelled into the flatness of everyday language. But again, is not this chaotic flatness of non-poetical language the indispensable background against which a new poetical use of the abused word becomes an exciting event?

VIII

The Inarticulate ('Baffling') Structure of the Joke

FREUD described the laughter-raising effect of the joke in much the same way in which I have now described the laughter-raising effect of a caricature, of primitive glissando melodies and wriggling dance movements, of 'reversed' music, speech and film strips, and perhaps of 'tickling' sensations in general—namely, as a 'baffling' of the surface mind which causes a sudden withdrawal of the mental energy from the surface into the depth of the mind where it is spent in laughter. The study of inarticulate structures like the caricature, primitive melody, or reversed music and film strips, allowed me to describe in more technical terms the reason for this baffling of the surface mind. We found that surface perception could only function when presented with form material which could be articulated according to its specific gestalt technique which, for instance, required a definite order in time; the inarticulate depth mind was, however, gestalt-free and could therefore grasp incompatible gestalt-free structures in a single act of perception.

While the inarticulate structure of a caricature or the reversed time order of speech or film strips remain a permanent obstacle for surface articulation and are apt to provoke laughter at repeated presentations, something very strange happens to a joke after the baffled surface mind has recovered from the laughter. Not only is a joke very short-lived and will not again arouse laughter, but the surface mind will react in a completely different manner. A 'good' joke which at its first presentation had duly aroused laughter owing to its inarticulate structure, will a second time be acclaimed as its very opposite, namely as an elegant expression of a sometimes poignant idea, as a neatly turned point, etc. Such adjectives like brevity, simplicity, roundness, neatness are typical properties of 'good' gestalt. We apply the same adjectives to a 'good' scientific formulation; it may impress us by its elegant brevity which conveys so much in so little. The transition from the initial impression of inarticulate nonsense to the virtues of an elegant scientific formulation is so abrupt and so sweeping as to make us suspect that this transformation may be due to a secondary process, comparable with the secondary elaboration processes in the perception of inarticulate art forms.

It is very difficult to see through the illusion of an aesthetic 'good' gestalt in a joke. Once we have acclaimed the joke as elegant and rationally significant, it becomes difficult for us to realize its original inarticulate and nonsensical character. We believe that we have 'guessed' an already previously existing meaning, a sense 'hidden' in a seeming nonsense. We may say, almost apologetically, that we had only failed at first making out the joke's objective elegance and cleverness which had been there all the time. No wonder that we are able to enjoy these aesthetic and rational qualities when we have recovered from our initial bafflement. We shall recognize this attitude as a particularly vicious instance of the 'Psychologist's Fallacy' (William James) which retro-relates a later more articulate form experience belonging to a higher level of consciousness back to a less articulate experience made on a lower level. In the instance of the joke's perception, this retro-relation is so difficult to resist because the primary inarticulate perception occurred only during a very short, though complete, paralysis of surface perception which, looking back, impresses us as a mere 'absence of mind' (this misleading impression of a 'gap' or 'emptiness' is the second aspect of the 'Psychologist's Fallacy', see p. 8[2]). We are reminded of our example of the artist who, when asked about the content of his inspiring vision, would simply point to his finished work; he believes that it has been, in its articulate form, in his mind all the time, only at first he could not quite grasp it. So we are led to believe that the joke had an articulate structure and sensible content all the time, only before the laughter we 'could not quite grasp' these. Forgotten are the original inarticulate experiences on a lower level of the mind which were destroyed when the fully articulate surface perception arrived to replace them (see p. 36).

The original truly inarticulate structure of the joke will not so easily slip from our grasp if we keep comparing it with the similar inarticulate structures which too rise from the unconscious mind, but are not transformed into a 'good' gestalt and a sensible meaning. We shall observe that they do not, as does the joke, baffle surface perception into a temporary paralysis; neither do they provoke a drastic aesthetic reaction on the part of surface perception. Such symbolic forms are produced by the dream, by certain highly irrational types of art, and last not least, by the involuntary slip of the tongue.

Freud was struck by the fact that a dream could produce word 'condensations' such as are found in a joke. He begins his book on wit with Heine's joke about a poor man who reports that a rich relative had treated him in a 'famillionaire' manner. The joke expresses the man's suppressed resentment that his relative's friendliness was tinged with an offensive condescension. A dream might throw up a similar word conglomeration outside a witty context and a deeper analysis might bring to the surface the same hidden resentment. But it needs elaborate psycho-analytical interpretation to discover this meaning. For a reason which the psycho-analytical theory has not so far explained, an analogous witty nonsense 'interprets itself' readily (though as we shall presently see, incompletely). In this the joke stands alone among the always obscure symbolic forms thrown up by the unconscious mind.

The mystery why witty nonsense is so readily interpreted deepens as we consider analogous symbolic condensations in art or in a slip of the tongue. L. Eidelberg[1] has examined slips of the tongue which were identical with jokes in form and symbolic content. He also refers to Heine's joke about the poor and humiliated relative and rightly points out that the condensation 'famillionaire' could also have been produced by an involuntary slip of the tongue. Indeed, we can imagine how a poor man tries to express his not too sincere gratitude for his rich relative's hospitality and inadvertently thanks for the 'famillionaire' treatment he has received. As a rule, only psycho-analytical interpretation would draw attention to a possible hidden meaning of this slip and reveal its aggressive symbolism.

James Joyce's last great work, *Finnegan's Wake*, abounds in word condensations the hidden meaning of which it is difficult to guess. If one abandons oneself to the flow of this dream language the condensations may exert an almost hypnotic influence. They are neither laughter-raising like a joke nor embarrassing like a slip of the tongue. One of these dream words happened to stick in my memory. Joyce speaks of a 'fadograph', a word probably condensed from 'photograph' and 'faded'. It may call up the vision of an old photograph, perhaps preserved in a yellowing album, faded like the memory of past youth which it embodies. Now the same word condensation could have been thrown up from the unconscious by a (perhaps not too good) joke purporting to express only an aggressive meaning. We could imagine an ageing beauty who still dedicates to her former admirers what her enemies may wittily call the 'fadographs' of her youth. By another stretch of our imagination, we can also consider the case of an embarrassing slip of the tongue committed by one of the recipients of the photograph who tries to thank the giver—perhaps not all too sincerely—for her beautiful, but outdated gift. Thus the same condensation, expressing the same meaning in the same form can occur as artistic symbol word, as a joke or as a slip of the tongue producing each time different emotional effects.

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[1] 'A Contribution to the Study of Wit', *The Psycho-analytic Review*, XXXII-1, 33.

One is struck in comparing the possibly wide unconscious content of the word 'fadograph' in James Joyce's dream language, carrying indefinable overtones and rich associations of a deeply melancholy character, with the shallow aggressive or obscene symbolism of the same word if used merely as a witty point. (We are not concerned with the question whether or not such a joke is a 'good' joke.) The ready self-interpretation of a joke does not yield the more complex connexions with deeper layers of the mind. Yet the same unconscious tendencies may throw up either a joke or an involuntary slip of the tongue; in our example this unconscious tendency would be the aggressive reaction against the gift of a photograph which has lost its actuality. As a slip of the tongue, the same word condensation can be analysed; it may well lead to far deeper layers of the mind and yield, like James Joyce's dream language, allusions to our ever-present fear of death and decay, a fear which the ageing beauty might have tried to deny by her clumsy action. It is difficult to accept the fact that if the word 'fadograph' led to a light-hearted joke instead of an embarrassing slip, it should have excluded these deeper unconscious meanings apart from its superficial aggressiveness. It is quite feasible that the narrator of the freshly invented joke could supply such wider associations if he consented to psycho-analytical interrogation.

The psycho-analytical theory is ready to admit that any interpretation must needs remain incomplete; it can never be excluded and it is indeed likely that other still deeper meanings remain hidden in any given symbol. This unlimited signification is clear enough in the interpretation of art forms and also of slips of the tongue. But in dealing with the joke's symbolism we are inclined to accept as sufficient its superficial meaning which we are able to 'guess' after recovering from the paralysing laughter. Is it not conceivable that this facile 'guessing', which is unique among the many nonsensical symbolisms rising from the depth mind, may lead to an all too well-defined interpretation so as to cut off further probings into any deeper unconscious meanings?

It would be a crude psychological conclusion to deny the joke a deeper symbolic signification because it conveys its meaning in a light-hearted manner. We must often say things light-heartedly which touch us deeply. Hence the most unbearable experiences may border on the grotesque. Some modern art, in spite of the sincerity of its emotion, may impress us as an irresponsible joke; its opponents will dismiss it because it lacks the seriousness of 'good' art. The Surrealists even dared to have their fun with the unsmiling science of psycho-analysis and produced a so-called dream symbolism which no self-respecting psycho-analyst could accept as a correct representation of a dream experience. Surrealism is joking, no doubt. But who can deny the stirring effect of these brittle jokes? With their seeming light-heartedness they may well be able to touch on unconscious urges which could not otherwise be so openly symbolized without creating an unbearable anxiety.

It is accepted as a characteristic of Shakespeare's theatrical craftsmanship that he liked to place light-hearted characters in his most tragic situations. Shakespeare has never been successfully imitated because this mixture is likely to be far more than a trick which brings colourful contrast and 'comic relief'. Richard Flatter (whose ingenious text criticism of the *First Folio* we mentioned in the first chapter) suggests in another book dealing with 'Hamlet's Father' that Hamlet unconsciously fights against his own suicidal wishes.[1] According to R. Flatter, Osric represents the dark angel of death, he is the symbol of Hamlet's forbidden suicidal wishes. Had Shakespeare depicted Osric as a ridiculous though sinister figure because he had to mask this unconscious meaning? Osric conveys to Hamlet the King's invitation to the fatal contest with Laertes which Hamlet accepts well knowing that he would thereby destroy himself. ('If it be not now, yet it will come: the readiness is all.') He later accepts willingly from the same Osric's hand his bated rapier which is unfit for his defence. Flatter concludes that he again looks through Osric's treachery. (His exclamation after

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[1] Recent psycho-analytical interpretations (Moloney and Rochelein) of Hamlet penetrate through the superficial Oedipus wishes to earlier infantile situations and discover matricidal under the more openly revealed patricidal wishes. In my opinion, Hamlet is suicidal as well as murderous in his relation to his mother.

Laertes's confession: 'The point envenom'd *too*!' betrays that he had known that the point of Laertes's rapier was *un*bated against his own bated point.) Were Osric, as the King's messenger and the guardian of the murderous weapons, represented as a powerful and forceful figure befitting his rôle as the angel of death, Hamlet's meek acceptance of the invitation and of the bated weapon would too openly reveal his connivance with his own destruction. *He* would then have been contemptible; but as Osric himself is made a contemptible ridiculous figure, Hamlet's submission becomes bearable; the terrifying symbol of death by suicide is hidden under a foolish, cringing, and comical character.

No, the light-heartedness of a joke is no proof that we should have to content ourselves with its all too ready self-interpretation; its obviousness may constitute a more effective 'resistance' to our guessing the deeper meanings of a joke than the obscurity of the same symbol forms used in art, the dream or the slip of the tongue.

This facile 'guessing' of the joke's official thought is not explained by the clever formulation of the joke. This can be brought out clearly by continuing our comparison of the joke with an analogous slip of the tongue. Who would earnestly think of acclaiming a speech blunder as the 'elegant' expression of a 'poignant' idea? We would say that the blunder merely expresses symbolically an obscure meaning which becomes accessible only by psycho-analytical interpretation. It may be understood, like the symbolism of art and the dream, unconsciously by our depth mind, but never be considered an adequate rationally comprehensible expression of some thought. In exactly the same sense, the joke's nonsense as it appears to the surface mind in its first Dionysian stage *before* the laughter cannot be more than an obscure symbol which does not express a rational meaning in an adequate way; solely by obscurity does it succeed in baffling the surface mind.

Only *after* the laughter, when the surface mind has recovered from its momentary paralysis, does surface perception spring back into action and project a new rational meaning into the joke. This happens when we 'guess' the superficial aggressive or sexual tendencies symbolized in the joke and accept them as its sole meaning. This 'guessing' must be conceived as a creative act by which a new rational symbol is assimilated into the body of rational language.[1] The consequence of this creation is similar to that of the articulation process in the artistic form language where a new form is lifted from its context and gradually flattens into a neutral 'counter'. A successful wit word which has become generally known will not be reiterated with its whole introducing narration though it was an essential part of the joke's structure. The isolated quotation of the point lifted from its context will suffice to recall the whole wit thought. It will still carry some of the witty effect and bring back a smile of recollection. In its isolation, it will stand for the whole wit thought and express it with greater vigour than the well-thumbed 'counters' of everyday language. But gradually the witty effect will wear off, and the witty origin of the expression might then be altogether forgotten. The articulation process is complete and rational language has grown richer for the acquisition of another neutral counter. Bloomfield (*Language* (London, 1950), p. 402) says: 'The witticism, having lost its point, remains in use as a normal form.' Thus the German '*Kopf*' (head) once meant 'pot'; medieval knights may have threatened to smash their enemies' 'pots' and so gave the word its modern meaning.

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[1] This projection of a secondary rational meaning into a nonsensical witty symbolism corresponds to the 'reification' process in scientific thinking which transmutes the thing-free creative vision (expressing in the first place the internal

Before the witty nonsense has been transformed into a rational symbol forming part of the rational language system, it possesses as little meaning as has the speech blunder. Both are irrational twists in the stream of language or thought differing only in that the joke's symbolism is readily understood by the unconscious irrational language function of the listener. In this the joke does not resemble the speech blunder but the obscure artistic word which is understood by the public's depth mind. In the discussion of the artistic articulation process in Chapter IV, we submitted that the unconscious symbol form of art—which represents the Dionysian language understandable only by the depth mind—must constantly renew itself owing to the secondary style elaboration which transforms the Dionysian forms. The short-livedness of the inarticulate Dionysian language is even more evident in the joke. Every joke must be 'new' in order to arouse laughter (for the exception of the naïve listener who can laugh repeatedly at the same joke, see later). The same problem of 'communicability', which we first met when discussing the unconscious symbolic communication between the artist and his public, comes up again. I somewhat vaguely suggested that the communication between the artist and his public may rest on a social 'supra-individual'

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world of repressed urges) into a new scientific idea interpreting the external world in a new way. The analysis of the 'reification' process belongs to the second part of this book dealing with the depth psychology of (meaningful) thing perception.

bond between artist and public. I think we can test this social bond a little more exactly in the understanding of the joke's symbolism. We can never be sure whether a work of art has been really 'understood'; much pretence goes on among the connoisseurs. But the ready understanding of a joke is proved by hearty laughter.

We can study the various cases in which the same joke is readily understood or misfires. Sophisticated and naïve people will react differently. We can even speak of cases where allusions which to the average person would be sheer nonsense still arouse laughter. This border case, where a 'bad' joke is readily (I would say almost too readily) enjoyed, and the opposite case where a 'good' joke falls flat is very instructive and allows us to see how important the social bond between the wit raconteur and his public is and how the, in itself obscure, wit nonsense is unable to convey a rationally comprehensible meaning without it. In an adolescent community—such as a class in a boarding-school—we often marvel that even rationally articulate sentences and words (which for the adult would possess a straightforward meaning) may still raise laughter because of some obscure, perhaps obscene, meaning which is read into it rather forcibly. Yet in the eyes of this community, united even more strongly by their 'knowing' laughter, the more rational outsider will stand humiliated owing to his lack of understanding. No doubt, in that single-minded audience the most clumsy and forced allusion will be duly admired for its cleverness. The readiness of their rational language function to yield to the inarticulate irrational language function is so great that hardly any 'bafflement' is needed for disrupting the weakened rational language function.

If the socially shared tendency is lacking the wit nonsense remains what it is, namely an incoherent distortion of the rational language like a slip of the tongue. Hence it is impossible to 'explain' the excellence of a joke in rational terms. If there were an arbiter who could judge over the objective merits of a good joke it would be only some impartial person who himself for some reason cannot laugh at it and can therefore undertake for us the task of evaluating the virtues of the joke as a good formulation of a thought on the basis of the existing rational language. But a person who cannot laugh at a certain joke (for instance because he does not share the suppressed aggressive or sexual tendency which is aired in the joke) is equally unable to concede its rational or aesthetic qualities. For him the wit nonsense can claim no higher aesthetic merits than an obscure slip of the tongue. It is, as we have said already, a futile and ungrateful attempt to 'explain' a misfired joke in rational language. The unfortunate listener who could not join into the laughter cannot hope to make up his loss by enjoying the 'explained' joke at least for its rational cleverness and aesthetic elegance. Hence the experienced raconteur will not add insult to injury by trying to impress his unsmiling listener by a rational explanation of his unsuccessful joke.

Only a person who first laughed at a joke can later enjoy it as a 'good' (aesthetic) formulation; in other words, the secondary aesthetic pleasure occurs only after the primary Dionysian laughter. (See later for the aesthetic pleasure as an 'after-pleasure' as against its usual conception as a 'fore-pleasure'.) When Freud speaks of 'good' jokes, he does not distinguish between jokes 'good to laugh at' and jokes 'good to be aesthetically admired'.

By taking it for granted that dead jokes: jokes only to be admired aesthetically, were once laughable jokes, he implies that the important 'law of *strict proportion*' which Nietzsche proclaims for the aesthetic (Apollinian) pleasures of art, also applies to the joke. A joke which today is aesthetically good must once have been good in raising Dionysian laughter as well. The aesthetic pleasure in the joke so proves its secondary character which we first met in our analysis of beauty ('good' gestalt) in art. The form processes in art and in the joke differ only quantitatively in their speed, but not in quality. In the artistic experience we find a gradual and smooth transition from gestalt-bound to gestalt-free modes of perception and vice versa; in the form process of the joke we find an abrupt switch-over between surface and depth perception. In art the diffuse state of attention characteristic of a gestalt-free form experience is gently induced and equally gentle is the later reconversion of the gestalt-free Dionysian form into the 'good' gestalt of Apollinian order and style; the 'baffling' joke on the other hand violently disrupts the smooth working of the rational language function and causes a short, but total paralysis of the surface mind. After the laughter, the abruptness of this switch-over between surface and depth perception is matched by the equal suddenness of the secondary aesthetic reaction. There occurs no gradual infusion of a missing 'good' gestalt into the inarticulate joke, but the joke is at once acclaimed and treated as an aesthetic expression of a rational and fully comprehensible thought. Apart from this considerable difference in its speed, the aesthetic enjoyment of the joke shows the same dynamic interaction between surface and depth perception which we observed in the secondary processes of art. Particularly does the aesthetic pleasure in the joke have the same secondary function, namely that of destroying the primary Dionysian emotion—here the Dionysian laughter.

There is indeed no reason, apart from the compulsive aesthetic enjoyment of the joke, why we should not repeat our Dionysian laughter at a joke. In the short interval before the laughter no surface perception of the joke takes place at all. Freud rightly says that we laugh without consciously knowing what we are laughing about. The whole process runs off unconsciously-automatically during the short moment of bafflement. Hence the joke has no chance of entering the (conscious) memory system. In Chapter I we pointed to the fact that all perceptions occurring on a lower level—for instance during a spell of absentmindedness—enter an unconscious memory system and so remain inaccessible for our conscious recollection (p. 21). If the process of the joke's perception ended with the laughter we could not possibly remember it at a second hearing.

If we consider the not at all infrequent case of the naïve listener who can laugh repeatedly at the same well-worn joke we find indications that he omits to reflect over a joke at which he has just laughed. We are rather prone to regard such people, graced as they are with the enviable gift of repeated laughter, as simpletons, as people with dull minds. Their ability appears not so much an easy 'forgetting' of an old joke as perhaps that they have never bothered with inspecting the joke at which they have just laughed with their surface perception intact. So they will fail to transmute the primary Dionysian enjoyment into a secondary aesthetic and rational appreciation of its form and thought; hence the surprise effect of the joke and its power of 'baffling' the surface mind does not wear off.

On the other hand, the listener inhibited by a stronger rationality cannot pass so lightly over a good joke at which he has just laughed. He will be forced to reflect on the cause of his laughter and now examine —for the first time—the structure and the meaning of the wit nonsense. As he allows his mind to linger on the joke, perhaps with half a smile, and enjoys its cleverness and elegance, he does not know that he is thereby destroying for ever its Dionysian power of raising laughter.[1] The aesthetic pleasure now attaching to the joke will help him to recollect the joke at once at a second presentation and he will fail, therefore, to be baffled by it. The aesthetic pleasure generally assists recollection. Those little rhymes which string together the formidable series of English kings or other proper names help us to remember them through the greater ease with which our memory retains aesthetically formulated matter. For the same reason commercial or political slogans are put into verse. The inarticulate structure which the joke shares with the dream and other form products of the depth mind makes them very difficult to remember. Dreams are easily forgotten. It is, of course, the gestalt tendency of the surface mind which repels the perception of all inarticulate structures as well as their reception into our conscious memory system. I submit, therefore, that it is the aesthetic feeling alone which enables the timely recollection of a joke at its second hearing. The joke is at once acclaimed as the excellent formulation of a brilliant thought and its perception remains firmly anchored in surface perception which so preserves its energy charge against the pull of depth perception.

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[1] The inevitable destruction of the Dionysian expressiveness in art form was explained by a similar coercion on the part of the artist who is forced to project a more articulate form into his own work than it actually possesses; see p. 73.

Once we have inspected and appreciated the (aesthetically) 'good' gestalt of a joke and admired its hard-hitting point, it will become difficult for us to retell it as a piece of baffling inarticulate nonsense, i.e. in its primary Dionysian form. If, moreover, we keep our mind fixed on its hidden meaning, our effective delivery of the joke will almost certainly suffer. In other words, the secondary perception of a joke as a meaningful and aesthetic symbol will not only destroy our ability to laugh at it, but also interferes with our ability to make other people laugh. From the viewpoint of the rational language function, the wit nonsense expresses the wit thought very inadequately. Let us compare the inarticulate form of the joke with the rendering of the same thought in rational language (which latter Freud called 'reducing' the joke). If in Heine's joke about the poor man who was treated 'famillionairely' by his rich relative, the implied meaning of the word would be expressed explicitly, and it would run like this: 'I was treated familiarly by my relative, *but* his familiarity was that of a rich man and therefore condescending and offensive,' we would establish a logical connexion between the words 'familiar' and the opposing aggressive tendency of resentment through proper emphasis on their opposed meanings. The inarticulate witty nonsense, however, 'drops' the point without giving it the proper emphasis and neglects its correct connexion with the camouflaging initial narration. (This misleading appearance of 'insignificance' and incoherence is, of course, shared by all symbolic form creations of the depth mind.) Now once surface perception has occupied itself with the hidden witty point, it becomes exceedingly difficult to preserve its casual and inarticulate appearance. The articulate language function will automatically try to reshape the inarticulate structure and delivery of the joke according to its laws of sentence construction and of due emphasis ('secondary' elaboration of the joke).

Let us first examine the inarticulate delivery of the joke which 'drops' the point as though it were an insignificant and incoherent afterthought. Freud did not examine the inventor's technique of telling a newly invented joke which is very near to an actor's technique. Freud stresses the important fact that the creation of the joke happens during an 'absence of mind', that is to say under total exclusion of the rational faculties. He also discusses the inventor's coercion to communicate his new joke to others as soon as possible; Freud does not, however, discuss the technique employed in delivering the joke. In fact the paralysis of his surface functions would, at least partly, persist while he tells his new joke. He can do so effectively because his surface mind has not yet had an opportunity of reflecting on the joke's rational and aesthetic qualities. He has to try his joke out on an audience in order to be sure; this may explain the very urgency of his need of passing on his new joke. This urgency may be accentuated by the difficulty of keeping his rational faculties from reflecting on the joke which they might thus destroy.

Let us now consider the case when the inventor has tried his joke on an audience and found it successful; he is now conscious of its excellence in formulation and thought. But just this awareness may be now dangerous unless the inventor is also an experienced raconteur. From the repeated delivery of a joke—now no longer naïve—it becomes clear that telling a joke must be 'automatic', that is to say excluding the rational surface faculties in the same sense as the artist's creative activity must be—at least partly—automatic.[1] The mien of unknowing innocence and diffidence which the inventor achieved at his first spontaneous narration was genuine, as he did not—consciously—reflect on the meaning of what he was saying. (In this there is a parallel between the first narration of a joke by its inventor and the listener's first hearing. The listener does not know at what he is laughing; only after the concluding of the primary inarticulate perception, i.e. after the laughter, does the listener's conscious reflection begin. Both the first telling and first hearing of a joke are 'automatic'.) The experienced story-teller will not superficially imitate an air of casualness, but succeeds in 'dropping' the witty point only through a feat of 'near-artistic' imagination. Like the great actor who, in his imagination, is able to deny the whole world of reality, so the story-teller will have to deflect his attention away from the hidden witty point as though he genuinely did not know its real meaning while he spins on with innocent patter of the introducing narration. If he were to allow his attention to stray and be focused on the coming witty point, his rational language function would spring into action and spoil the joke's automatic delivery.

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[1] See for the artist's automatic form control, Chapter II.

Everybody knows those unfortunate people who cannot help spoiling even the best joke and jumble up its structure. If we care to compare the altered structure ('secondary elaboration') of the spoilt joke with its original structure, we shall find that the spoilt joke approaches closely the rational ('reduced') rendering of the joke's thought. The two opposing tendencies, contained in the introducing narration and the hidden point, will be more properly connected and the point will receive the emphasis due to its true significance. This will of course deprive the point of its surprising baffling effect and so 'spoil' the laughter. But from the point of view of the rational language function the spoiling of the joke is an improvement; it is due, in my opinion, to the failure of the story-teller to keep off his rational language function from interfering with the 'automatic' delivery of the joke.

The spoiling of a joke would represent an amusing counterpart to the slip of the tongue. There the rational flow of language is 'spoilt' by an involuntary intrusion of inarticulate form material from the unconscious mind; the inarticulate language function of the depth mind interferes with the rational language. The spoilt joke, on the other hand, is caused by the interference of the rational faculties of the surface mind with the inarticulate language function which controls the automatic delivery of the joke; the spoilt joke is, as it were, a slip of the tongue 'from above'. As already mentioned, the spoiling is something like a 'secondary elaboration' of the joke which straightens out its inarticulate structure. But while we are wont to value highly the secondary (style) elaborations of art, we have little regard for their equivalent in a spoilt joke. Yet both destroy a primary enjoyment (Dionysian emotions of art, Dionysian laughter) by projecting a secondary, too articulate gestalt into the inarticulate Dionysian structure.

The faces of those people who are unable to tell a joke without spoiling it often reveal the struggle between the rational and irrational (articulate and inarticulate) language functions. Such people often sway between compulsive giggles and strained seriousness. They may begin with a determined attempt at an automatic delivery of the joke, but at intervals the joke's inarticulate structure will rise into surface attention and be at once repelled because the articulate language function cannot really deal with it. This 'baffling' will then cause the compulsive giggling which is so painful for the unhappy narrator and his listener. By this analysis of what we may call the 'pathological' case of a narrator, we arrive at a very satisfying interpretation of the not yet fully explained fact why the inventor does not himself laugh at his own joke. His delivery of the joke is indeed wholly automatic and withdrawn from the rational language function. Hence the mental energy first shifted to the depth mind during the invention of the joke remains firmly fixed there and is used up for the near-artistic activity of telling the joke. The reason why the artist does not laugh in his creative activity is the same. In art there neither occurs an oscillation of mental energy. The artist keeps part of the mental energy stably fixed in his depth mind for a continuous automatic form control.

Let us sum up the peculiarities of the joke's creation and perception compared with artistic creation and perception. The swift sequence of inarticulate and articulate stages in the joke's perception shows the interaction between depth and surface perception in far greater clarity than the more gradual as well as more complex changes in artistic perception. There would be first a primary Dionysian stage (in the active creation and delivery of the joke as well as in the passive listening to it) where surface perception is kept altogether inert; hence the joke shows a wholly inarticulate (gestalt-free) structure, altogether without the superstructure of aesthetic gestalt which in art serves to appeal to and to assuage a still functioning surface perception.

In the primary inarticulate Dionysian stage of the joke's perception no aesthetic pleasure whatsoever is possible. It is true that the 'baffling' of the surface articulation by the joke requires a certain delicate form technique which could well be mistaken as aesthetically valuable. A too crude distortion of the articulate language would be dismissed outright as nonsense under feelings of disgust (ugliness) as surface perception contemplates the joke's obviously inarticulate structure. A too subtle distortion would be altogether overlooked owing to the 'bump-erasing' and 'gap-filling' function of the gestalt process which suppresses minor flaws in an otherwise 'good' gestalt. It is necessary to achieve a clever balance, which does not allow the gestalt process to act in either way and so brings surface perception to a standstill. But this subtle baffling technique is the reverse of aesthetic virtue. A 'good' gestalt arouses aesthetic feelings because it supports the process of gestalt articulation. The baffling technique of a 'good' joke, however, succeeds because it can throw the gestalt process out of gear.

No, the aesthetic feeling has no function in the primary Dionysian stage of the joke's perception. It emerges later in the second, Apollinian stage as a pure 'after-pleasure' which replaces and destroys the primary (Dionysian) pleasure. This new expression 'after-pleasure' brings out clearly where my dynamic theory differs from the current concept of the aesthetic feeling as a 'fore-pleasure'.

Even in the more complex dynamic processes of artistic perception the concept of the aesthetic feeling as a 'fore-pleasure' assisting the release of the Dionysian main-pleasure from the repressed creative urges is misleading. The aesthetic pleasure attaching to the articulate superstructure of the work of art does not assist the Dionysian main pleasure derived from the unconscious inarticulate symbolism of art. Rather does it restrict and partly destroy it. We showed how the Apollinian type of artist is more inhibited than the Dionysian artist and so must introduce a stronger aesthetic form component into his work which binds part of the mental energy in surface perception which otherwise would have been available for the inarticulate depth perception of the unconscious symbolism. This aesthetic component is the reason why art form does not disrupt surface perception in the brusque way in which the inarticulate wit nonsense baffles it. In art there remains always a residue of articulate style and ornament which will safeguard surface perception against a complete draining of its energy charge. The aesthetic pleasure in art, therefore, is best described as a 'restrictive condition' imposed by the artist's superego at the expense of his creative effort directed towards expressing the Dionysian urges in an inarticulate structure.

The true relation between the Dionysian main-pleasure and the aesthetic pleasure restricting it, can be studied in our aesthetic experience of human beauty. I suggested that the main function of the aesthetic pleasure was to convert and to destroy the Dionysian voyeur excitement of (non-genital) objects. As it is formed it detracts, therefore, from this excitement. The man who needs beauty in a woman in order to be attracted by her would require a greater admixture of aesthetic feelings imposed by his superego as a condition for his being able to exercise his reduced faculty for Dionysian excitement. Yet in a loose manner of speaking we might say that beauty feelings were the 'cause' of his excitement. The Dionysian man, however, will be attracted by unaesthetic irregularity rather by cold regular beauty; he is not forced by his superego to dilute his excitement by an unduly large admixture of aesthetic admiration.

The concept of a cold 'classical' beauty is, of course, derived from our detached aesthetic enjoyment of Greek sculpture which in their marble coldness arouses our highest aesthetic admiration, but little Dionysian voyeur pleasure. Two centuries ago, when the interest in classicism became a fashion, it was thought that the true artist had to admire the human body aesthetically without being aroused by sexual attraction. The cold beauty of the Greek statues was a good illustration of this emotionally detached attitude. Since then Nietzsche has exposed the stirring Dionysian emotions which are hidden by the superficial sublimity and grace of classical art. We begin to realize that the myth of Pygmalion shows the true emotional attitude of the Greek artist to his model better than our own coolly aesthetic attitude which we wrongly project back (retro-relate) into the original classical experience. It must have been the reckless voyeurism of Greek culture which tore down the barriers of shame and produced the Dionysian ecstasy of Greek sculpture. Their cold and regular beauty is due to an extreme secondary reaction on our part. The most uninhibited voyeurism in art had to be transmuted into its very opposite, a restrained and emotionally detached admiration of beauty. The almost scientific imitation of Greek sculpture, such as that practised by the Dane, Thorwaldsen, does indeed succeed in keeping us cold. It fails emotionally because it is not born of the Dionysian excitement which once animated the Greek originals and of which the present impression of beauty is only a secondary elaboration. Our present all too calm experience of 'classical' beauty is the best summing up of my dynamic concept of the aesthetic feeling as a merely destroying or restricting 'after-pleasure'.

SECOND PART

The Depth Psychology of (Meaningful) Thing Perception

IX

The Reification of Art Form

In artistic perception, and as we shall see also in ordinary perception, there exists another dynamic tension between surface and depth perception. The artist, in his creative state, dissolves not only the 'good' gestalt of surface perception, he also disintegrates its 'thing' quality. In Chapter II, I explained how the artist pays but little attention to the coherent thing shapes around him; he may dissect them into arbitrary fragments and rejoin them into irrational form phantasies to suit his unconscious urge for symbolization. In other words, artistic perception tends to be not only gestalt-free, but also thing-free. We observe this thing-free mode better in primitive or irrational types of art which also demonstrate the gestalt-free modes of perception. We saw how in some primitive art the unconscious symbolism, hidden in the images as in picture puzzles, may distort the realistic appearance of the outlines; while the more inhibited civilized artist may be impelled to make the outlines follow a realistic imitation of the real things. We shall see that the artist is forced, to a greater or lesser degree, to 'reify' his symbolic form play; while it unconsciously expresses the inner dream world of symbolic expression, the work of art is made to represent the real things of external reality. I am borrowing the term *reification*' from the child psychologist Sully who attributes to the child a tendency to 'consider as external, to "reify" . . . , the contents of his mind'.[1]

The secondary reification of the artist's symbol play is not merely a covering up of his symbolic forms under a thin façade representing external reality or the projection of a superficial rational meaning into them. As a secondary process reacting against the thing destruction in artistic vision and hearing, it serves to reintegrate the destroyed thing perception in all its unconscious dynamic processes.

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[1] Piaget, J., *The Moral Judgment of the Child* (Kegan Paul, 1932), p. 184. In my paper 'Unconscious Form-Creation in Art', Part III, I used the term '*externalization*' which has a somewhat wider reference.

We have already touched upon such complete reintegration of thing perception in our analysis of harmonic articulation. Pre-harmonic polyphony represented a confusion of acoustic thing perception (differentiation of tone colours); the articulation of harmonic chords reacted against the confusion by differentiating instead the 'artificial' tone colours of the consonances and dissonances. The unconscious dynamics of harmonic articulation resemble those of the articulation of the 'natural' tone colours; instead of the original repression of the overtones, underlying the 'natural' tone colours, we have the repression of the single chord tones (see certain differences in the dynamics of the two repression processes in the next chapter). I am anticipating the results of my later discussion of thing destruction in music, in order to show that the secondary reification process in artistic perception goes beyond superimposing a rational thing meaning on top of the unconscious thing-free symbol play of art; it repeats, on a different level, the dynamics of the original psychological process which, in the first place, enables us to perceive the real things (e.g. the process of repression inherent in the 'primary' reification; see later on).

In the first part of this book, the secondary gestalt articulation of art helped us to understand the primary gestalt processes in ordinary surface perception. Similarly, we may now hope that the dynamics of the secondary reification process may shed new light on the unconscious processes underlying our ordinary thing perception (primary reification).

The real things impress us first by their *constancy*; they appear to be the same in spite of their many varying aspects. They also excel by their intense *plastic* quality which sets them off from our 'flat' perception of abstract gestalt formations, such as geometrical shapes. Most important of all, they have the quality of *externality*, i.e. of their separateness from the internal world of the mind. We shall see that all these three characteristics also play an important part in the 'secondary' reification processes of art, though there they may only create 'illusions' of constancy, plastic reality, and externality; there they will appear to be connected with extensive processes of 'repression' (for instance the repression of the single chord tones in the fusion of harmonic chords);

shall we be able to discern similar repressions in the 'primary' reification process which builds up the external world of real things?

The nineteenth-century psychology of 'Introspectionism' discovered that our perception of the real things eliminated from consciousness the various 'distortions' which the form, tone, colour, localization, etc. of the real things undergo owing to changes in their illumination, or in our viewing angle, etc. It stands to reason that to find our bearings in the world would become extremely difficult and liable to error if we had consciously to discount the ever-changing distortions of form, tone, etc. in order to arrive at the unchanging 'constant' properties of the real things which alone are biologically significant for our reality adjustment. As it is, the so-called 'constancies' of form, tone, etc. automatically discount (repress) these 'thing-free' distortions and give us instead an immediate awareness of the 'constant' reality which—and this is the hitherto neglected salient point—contain little, if any, precise form experience. As a rule, we are not conscious of this lack. When we recall the face of a friend it might appear before our inner eye as vivid and seemingly complete in details of form; but if we were asked if we recalled his face full or turned slightly sideways, we would hardly appreciate the point of such a question. So little do we realize—both in recalling and also in actually looking at a real person—how the slightest change of attitude affects the purely abstract gestalt aspects of a face. The angles of perspectivic distortion and the foreshortenings of the single forms are in a constant upheaval of which we are hardly aware in everyday life. We are irritated by the fussiness of a portraitist who tries to freeze his model into immobility. But try once to realize the enormous changes in abstract gestalt which occur as a human head turns from a full face to a full profile. The ridge of the nose was a somewhat indistinct quadrangle seen full face. As it turns sideways its geometrical shape is transformed into something entirely different and ultimately assumes the characteristic triangular shape of the nose in profile. Between these polar attitudes are crowded countless transitional attitudes which assume an even wider variety if the sideways movement is combined with a nodding movement and so produces the additional distortions of the bird's- and frog's-eye views. If we wished it, the artist, with his greater sensibility for abstract meaningless gestalt, could arrange the human form into thousands and thousands of strikingly different aspects which however never penetrate into our everyday experience of reality. As we sit quietly opposite an old friend we do not have to renew unceasingly our efforts in order to recognize his familiar face in his ever-changing 'abstract' thing-free aspects. It just appears to be the same all the time; we are not aware that our impression of sameness is bought at the price of having hardly any precise form experience at all. This is due to the 'repression' of the inconstant thing-free aspects (see p. 104).

The nineteenth-century Introspectionism could not, of course, realize the depth-psychological implications of its discovery.[1] The elimination of the 'thing-free' distortions of form, tone, colour, localization, etc. is a true 'repression', that is to say the eliminated distortions are not altogether lost to perception, but are perceived by depth perception from where they may return into consciousness. How are we to know this? It is again the depth-psychological facts of artistic perception which suggest this assumption. The artist not only destroys the abstract 'good' gestalt of surface perception (as we have seen in Part I of this book), but also disintegrates the 'thing' constancies under the pressure of his creative urges which strive to symbolize themselves in the gestalt- as well as thing-free visions of the depth mind. The nineteenth-century Introspectionists too were agreeably struck by the fact that the realism of Western painting had already partly uncovered the distortions of constant form by perspective, of constant ('local') tone by Chiaroscuro, of constant colour by Impressionistic open-air colouring.

This singular phenomenon of scientific discovery in art would be explained by the return of the 'thing-free' distortions into consciousness. The Renaissance painters were the first to pierce through the 'constancy of form' and discover the ever-changing perspectivic distortions and foreshortenings beneath; the Baroque painters penetrated through the 'constancy of the local tone' (brightness) and discovered the strong contrasts between light and shade (i.e. Chiaroscuro); after the lapse of another three hundred years the Impressionists overcame the 'constancy of the local colour' and discovered the play of open-air illumination on the constant colour of the real things. The painters were not out to discover biologically less relevant unconscious modes of vision. They were out to make their paintings appear more plastic and life-like; in comparison the previous 'naïve' methods of painting appeared to them to be flat and stylized. Perspective gave painting an almost three-dimensional depth; the Chiaroscuro of the Baroque used the transition between full light and deep shade in order to mould the solid things in the round; the shimmering open-air colours of Impressionism are said to produce a feeling of the empty space, of 'atmosphere', extending between the depicted scene and the onlooker. Here the creative achievement of art represented an advance in the scientific and plastic representation of the external world; strangely enough, this advance rested on the successive break-throughs of unconscious biologically less relevant perceptions which had been repressed by the constancies of form, tone, and colour. Was not the constancy of our thing perception the very basis of our concept of a stable and unchanging external world? How could the disintegration of this all-important constancy be felt as an advance in the scientific representation of the external world? As we shall see, this is due to a secondary reification which transmuted the primary disintegration of constant thing perception into a new and rationally more valuable method of perceiving and representing the real things.

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[1] Köhler, from his gestalt-psychological viewpoint, criticizes Introspectionism for being solely concerned with destroying the various constancies and reaching the 'true sensations' underneath, without inquiring how the all-important constancies succeed in superseding those 'true sensations' (*Gestalt Psychology*, p. 53 *et seq.*, from where some of the following illustrations of the Introspectionistic experiments are taken). Yet the Gestalt Theory too fails to explain the repression of the various thing-free distortions from consciousness.

Let us examine in more detail the first two constancies of form and of tone which artistic perception disintegrated during the evolution of realism in European painting. We said that the 'constancy of form' discounted (repressed) the ever-changing distortions of perspectivic foreshortening. We hardly, if ever, see an object without some perspectivic distortion of its 'constant' form. Of the two arms of a person the nearer appears bigger on the retinal image, or vanishes as the arm is raised to point towards our observing eye. A table laid with round,

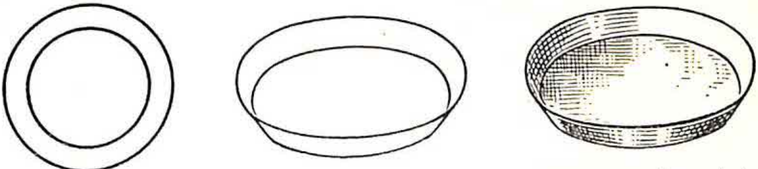

FIG. 9. The 'constant' circular form and white tone of a plate compared with its 'distorted' perspectivic form and Chiaroscuro tone.

equally big plates shows in the retinal image a multitude of elliptical forms, but hardly ever a perfect circle. The ellipses become flatter towards the far end of the table, rounder towards its near end. Owing to the 'constancy of form' we instantly recognize their identical roundness and pick out that odd plate which possesses—like a meat platter—a *real* elliptical shape. The 'constancy of form' automatically discounts all these distortions of the real constant form. This makes our thing recognition both more rapid and more reliable. It is easy to imagine how difficult our thing recognition would become if we had to discount consciously the perspectivic distortions and foreshortenings. Only complex mathematical operations taking into account the trigonometrical data, such as viewing angle, distance, etc., would calculate the real 'constant' form of an object from a given perspectivic aspect. Hence, as already mentioned, the repression of the distortions represents a very important step forward in making perception serviceable for recognizing reality.

The 'constancy of tone' (brightness) offsets the distortions of the local tone by the vagaries of illumination (Chiaroscuro). A black book placed in the full sunlight might become lighter, or of the same grey tone, as a white paper lying in deep shade near by, i.e. both reflect the same amount of grey light on to the retina. An awkward photograph which fails to take into account sufficiently the possible effects of different illumination might show the book as almost bleached white and the paper a dirty grey. In our normal experience of reality, however, we do not perceive the 'true' tone values of Chiaroscuro. Instead, the 'constancy of tone' automatically discounts the distortions of tone and we perceive at once the real constant tone values of black and white. The Introspectionist psychologists placed a perforated screen between the observer and the two objects so that only small spots (cut out from the surfaces of the black book and white paper) remained visible through the viewing holes. As the different illumination of the book and of the paper is then no longer apparent it can no longer be automatically discounted (repressed) by the 'constancy of tone'. Hence the two greyish spots can reveal their true Chiaroscuro tones. As soon, however, as the screen is withdrawn and the observer is again made aware of the difference in illumination, the suspended 'constancy of tone' springs back into automatic action and forces the observer to see again only the constant local tones of black and white. It needs a careful training of the eye—as the photographer of today must possess—in order to realize the enormous influence of Chiaroscuro illumination on the local tone values. Painters have never bothered to investigate scientifically the tone distortions hidden under the 'constancy of tone' as they had previously investigated the form distortions by perspective. This may be partly due to the greater strength of the 'constancy of tone' as compared with the 'constancy of form'; had painters reproduced scientifically the true Chiaroscuro distortions, the effect would have been as little realistic as that awkward photograph of the bleached

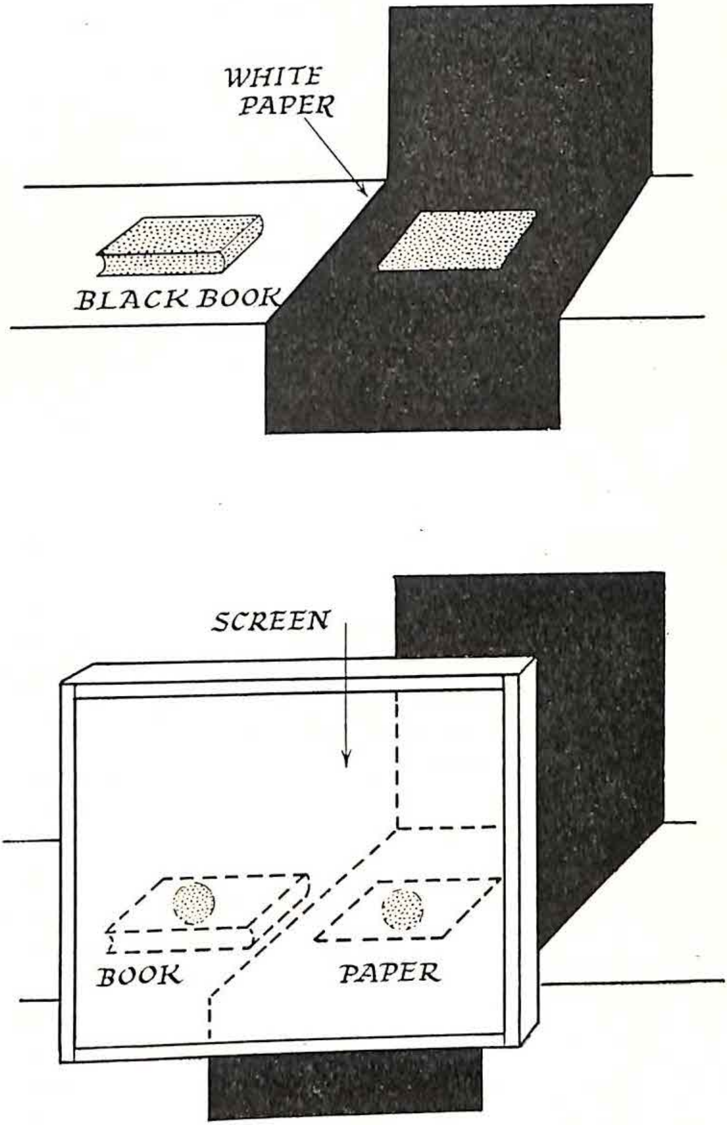

FIG. 10. The black book 'bleached' by sunlight and the white paper darkened by shade—their identical tone values revealed by the use of a screen.

black book and dirty paper. (This difference in the strengths of the various constancies has some bearing on the history of realism and its recent downfall as we shall see later.)

As long as the 'constancy of tone' is not overcome we really *see* the local tones between black and white. The same holds good of the 'constancy of form' repressing perspectivic distortions; as long as we do not overcome this constancy, we really see the constant form of a thing and not the accidental perspectivic distortions hidden under the constancy. As long as the painter and his public have not overcome the constancies of form and tone there is no point in the painter reproducing scientifically the repressed distortions of form and tone. Hence the naïve painter, before the advent of perspectivic and Chiaroscuro painting, reproduced on the canvas the constant form and tone of an object which he actually saw, not what he merely knew to exist. The customary distinction between a 'perceptual' type of painting which reproduces the actual perception and a 'conceptual' type which reproduces the object as it ought to look according to our knowledge of its constant properties, is at best inexact because it does not take into consideration the possible dynamic changes which have taken place in our perception since the Renaissance. The realistic artists, by their successive 'discoveries', have so altered our thing perception that we wrongly take our present (still limited) awareness of perspective and Chiaroscuro in everyday vision for a primary fact of vision and therefore deem perspectivic or Chiaroscuro painting the only possible 'realistic' way of painting. Art psychologists try to explain to us, almost apologetically, why certain artists dared to neglect perspective or Chiaroscuro which others perceived so clearly. This attitude reverses the true position. We are indebted to artists, past and present (and today also to the art of photography), for the limited awareness of the perspectivic distortions of form, and of the Chiaroscuro distortions of tone which we now possess. While it is still difficult to overcome the 'constancy of tone' (unless we have laboratory equipment) and we realize therefore only imperfectly the distortions of the local tone by the Chiaroscuro, it now needs only a slight change in our mental attitude in order to overcome the 'constancy of form' and realizing the perspectivic distortions of form hidden underneath. So slight is the effort sometimes that we are liable to think—erroneously—that any conscious perception of a thing must necessarily contain the perspectivic distortions as registered on the retina.

. . . . .

E. H. Gombrich[1] uses recent investigations of animal psychology in order to demonstrate that the awareness of an abstract form (gestalt) is not a primary fact of vision. It is possible to 'deceive' animals with very crude representations of certain things. Man too recognizes biologically important forms not by deducing their identity from a 'neutral medley of forms'. The more important a thing is biologically, the less form experience will be needed in order to represent it in nature and in art. Gombrich therefore sets out from a different starting point and arrives at the already stated fact that thing perception (which could be defined as the perception of biologically significant forms) contained little or no precise form experience (abstract gestalt). We shall see later in our dynamic interpretation of the plastic feeling that we wrongly attribute to our thing perception a precise abstract gestalt because we tend to confuse the intense plastic appearance of the things with their actually missing precise gestalt. We feel that the things in their plastic solidity must also possess a clear well-articulated outline.[2]

It was the artists then who taught us to become aware of the thing-free gestalt forms in real things. We saw how art instruction may advise the art student to treat the picture of the world around him like a flat abstract pattern. In the example of a morning drive in a lifting mist we illustrated the specific artistic faculty of cutting the coherent solid things into meaningless segments which the artist may fit into an irrational play with abstract (thing-free) forms.

This detached 'thing-free' way of looking at the outside world, as though it were a flat abstract gestalt pattern, presupposes a lessening of the normal libidinous interest in reality. As the artist does not care for the real constant properties of the things he is able to overcome the various constancies of form, tone, and colour, to destroy in fact his thing perception and bring up the biologically less relevant distortions of perspective, Chiaroscuro, etc. This is as true of the present-day art student, who is taught a better awareness of perspective, Chiaroscuro, etc., as it must have been true of the Renaissance, Baroque, and Impressionist artists who first 'discovered' the laws of realism.[3]

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[1] 'Meditations on a Hobby Horse (or the Roots of Artistic Form)' in *Aspects of Form*, Symposion edited by L. L. Whyte (London, 1951).

[2] See also the remarks about 'thing similarity' and 'gestalt similarity' in our discussion of the caricature in Chapter VI, and p. 227.

[3] This general disintegration of thing perception may be connected with the previously discussed fundamental element in artistic creativeness observed by Dr H. Segal, namely with the advance of Thanatos urges with an ensuing destruction of the object and the self in the primary creative state. The secondary processes of reification would reconstitute not only thing perception, but also the self.

We shall see later (p. 184) that the naïve spectator preserves his libidinous interest in reality and therefore still singles out the real things with their constant properties from the realistic paintings; he thus 'represses' again the thing-free distortions of perspective, Chiaroscuro, etc. Only this naïve (reintegrated) thing perception of the realistic paintings acquires a plastic, almost three-dimensional quality. We have to distinguish this secondary naïve way of viewing and repressing the various distortions from the original creative vision which brought these distortions to the surface owing to its aloof treatment of reality as a flat, meaningless pattern. It was not the Western artist's heightened interest in external reality which made him 'discover' the previously repressed thing-free distortions of constant form, tone, and colour, but his diminished libidinous interest in reality, i.e. the very opposite from what we would have expected. But we have got used to the paradox that the artist's creative vision in the end produced—through the agency of secondary processes—an exactly opposite result. Thus, the Western artist, by his libidinous withdrawal from the external world, gave us through the secondary process of reification a new near-scientific grasp on external reality.

We must not confuse the intense scientific interest of the Renaissance artists with a true libidinous interest in the external things. Libidinous and scientific interests (and as we shall see a 'scientific' and 'libidinous' realism in art) exclude each other. Scientific observation is disturbed by ties of love or hatred; it attempts to be emotionally aloof. An anatomist would hardly care for dissecting the body of a person dear to him however interested he would otherwise have been in examining such a case. We shall understand better the irrational source of the scientific realism which dominated our art from the time of the Renaissance until recently once we have examined the general scientific tinge of Western civilization and its irrational origin.[1]

Since the late Middle Ages the Western artist has steadily retreated from external reality and disintegrated in his vision one thing constancy after another until, as though through a sudden catastrophe, 'modern' art brought the progressive thing distortion and destruction into the open. After discussing acoustic thing destruction in the next chapter, I will revert to the visual arts in Chapter XI and demonstrate the continuity of our 'modern', openly thing-free (abstract) art with the previous realistic art.

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[1] See in Chapter XVI and in the *Postscript*.

X

The Unconscious Form Principle of Music

Now we have established the existence of extensive repression processes as the basis of visual thing perception we are in a better position to evaluate the rôle of repression in the formation of the 'natural' tone colours (which are as we showed the acoustic 'things' themselves) and in the formation of the 'artificial' tone colours by music. It is usually said that the overtones 'produce' the different tone colours of things by their 'fusion'. This description is not quite exact. The repressed overtones do not produce tone colours by fusion any more than the artificial tone colours of music are produced by the 'fusion' of the repressed glissando, vibrato, inarticulate rhythmical steps, etc. Rather, acoustic thing perception substitutes the conscious experience of tone colour for the repressed overtones, much in the same way as visual thing perception replaces the thing-free distortions of perspective, etc. by the constant appearance of the real things. All these cases contain processes of 'repression'.

It is not sufficiently realized, least of all among average musicians, that the inaudible overtones are not freaks of nature, but physically ordinary sounds. On a graph of sound waves, the overtones are registered in the same way as the normal consciously audible tones. The overtones are repressed owing to the specific structure of the chord into which they fit, a chord which corresponds to the characteristic multiple sound waves emitted by most solid things. Owing to certain mechanical laws governing the vibration of solid bodies, sounding things generally produce such multiple sound waves possessing specific structures. Their composition varies according to the (metallic, glassy, wooden, etc.) substance of which the sounding things are composed. If the overtones could be consciously heard, they would produce more or less complex chords; the frequencies of the chord tones might stand in simple mathematical relations to each other, like 1 : 2 : 3 : 4, etc.

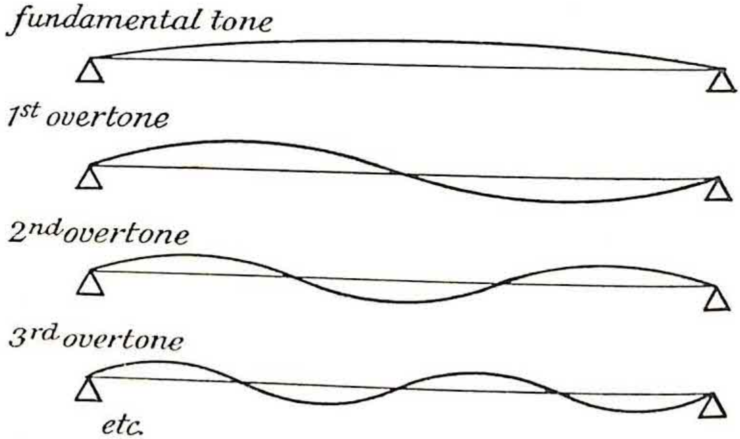

FIG. 11. The multiple vibrations of a string as the source of the overtones.

But instead of this chord which should often sound quite agreeable, we usually hear a single tone, the fundamental. The others are 'repressed' and replaced by the experience of tone colour which is projected on to the audible fundamental. The tone colour varies according to the composition of the inaudible overtone chord which in turn is the function of the different substance of the sounding thing. Hence the perception of 'metallic', 'glassy', etc. tone colours greatly facilitates the acoustic differentiation of the real things. Without tone colour fusion we would have to analyse the complex and often confusingly similar composition of the overtone chords, in order to infer the substance of the sounding things and so identify them. Hence a conscious overtone perception, if it were at all possible, would be biologically less serviceable.

The difference between the repression of the overtones and the repression of the thing-free distortions of form, size, colour, etc. is only one of quantity. The repression of perspective is only slight and can be overcome by a small mental effort. But we saw that the thing-free tone distortions of Chiaroscuro are more strongly repressed and withstand introspection unless we are using laboratory equipment. We shall see that there exist other constancies in visual thing perception (for instance the 'constancy of localization') which equal the repression of the overtones in their strength and cannot be overcome by any means.

We shall be able only to infer the existence of certain thing-free perceptions hidden under these strong constancies solely from the facts of artistic perception. Similarly, we can now infer the hidden existence of an unconscious thing-free overtone hearing from its palpable effect on musical form. Every self-respecting text-book on harmony carries in its first pages a schedule of overtones and so demonstrates the far-reaching correspondence between the composition of the inaudible overtone chord and the structure of the European scale and harmonic systems. The inaudible overtone chord contains most of the tone steps of the scale and also the most important consonant intervals. That the (consciously) inaudible overtones should exert such a powerful influence on musical form forces us to attribute to them a psychological existence. If they are not heard consciously, then they must at least be noted unconsciously so that they can make their influence felt (see the same argument in favour of an unconscious perception of artistic 'technique' in Chapter II). We must concur, therefore, with Arnold Schönberg's opinion that the form principle of music rested on the psychological influence which the overtones exercised on the composer's *unconscious* hearing. We shall presently discuss how the unconscious hearing of the overtones may influence musical form. First perhaps I may be allowed to establish the full analogy between visual and acoustic thing perception.

The acoustic thing perception, by means of tone colour, also partakes of the 'constancy' in general thing perception. We saw that it was necessary for our concept of a stable external world that the perceived thing properties (of form, tone, etc.) should be made independent of the ever-fluctuating distortions of their form, tone, etc. in the retinal image. Now the 'natural' tone colour of a thing also remains independent from accidental fluctuations in the composition of the inaudible overtone chord. Generally the rule may hold good that the conscious tone colour changes with a change in the unconscious overtones. So the thin tone quality of the tuning-fork indicates its total lack of overtones. Strictly speaking the tuning-fork possesses a tone colour only by default. It is solely because other sounding things in fact possess overtones and so acquire a pregnant tone colour, that we can distinguish the emasculated tone colour of the tuning-fork. If the miracle of the tone colour perception did not exist, then all things would sound with the tingle of a tuning-fork; but the other things would reveal multiple tingling sounds (i.e. complex overtone chords) and so differ from the single tingle of the tuning-fork. Their thin tone colours, however, would be identical. As it is, the rich overtone chord of a bass voice or of a drum is repressed and replaced by the perception of a correspondingly rich and plastic tone colour. (We shall be able to correlate the plastic quality of tone colours with the richness of the repressed overtone chord within the framework of a general theory of plastic feelings in perception based on the concept of 'repression'; see Chapter XV.) The smallest difference in the composition of the overtone chords as emitted by *different* things at once expresses itself in a subtle change in the consciously heard tone colour. Yet if the overtone chord of the *same* thing becomes unstable, the 'constancy' of acoustic thing perception will keep the consciously heard tone colour constant. When the violin swells or weakens its sound intensity, or, by playing a melody, alters its pitch, these changes will also affect the overtone composition of the violin sound. Yet in our conscious tone colour hearing, no corresponding changes of tone colour occur. The violin keeps its characteristic tone colour throughout whether it is played loudly or softly, higher or lower. This 'constancy of tone colour' attached to the hearing of the same acoustic thing fits into the general function of the constancy of thing perception which represses the accidental fluctuations or distortions of the constant thing properties given in the sensory stimuli. The whole magic of overtone fusion could not serve its biological purpose as a means for the recognition of the acoustic things were it not also equipped with constancy.

This constancy is not easily maintained. We showed how medieval music purposely blended different voices in order to produce a pleasurable confusion of acoustic thing differentiation. 'Modern' music which, like all 'modern' art, has an affinity with primitive art, delights in an orchestral technique that blends the tone colours of different instruments and so destroys the 'constancy of tone colour' attaching to the single instrument. In their physical overtone composition the higher and lower ranges of the same instrument, for instance those of the flute, may be physically very dissimilar, more so perhaps than the lower range of the flute and the top range of the bassoon. By combining the related ranges belonging to different instruments in a single melody or in the mixture of orchestral tone colour, the composer is able to confound our ability of distinguishing the different sources of tone colour. One is reminded of John of Salisbury's description of how the early polyphony succeeded in confusing acoustic thing differentiation. Modern composers, like Schönberg or v. Webern, like to play with the thing-free ambiguity of modern orchestration techniques by sharing out a continuous melody between different instruments which in turn take it up in so smooth a manner that no break in tone colour is felt. This irrational play with tone colour ambiguity is another instance of art's general tendency towards 'thing-destruction'. The musician, by obliterating the sharp boundaries of tone colour differentiation and fusing the tone colours of the orchestral instruments, resembles the painter who pays no heed to the boundaries of the visual things and fuses segments belonging to different thing forms into a phantastic 'thing-free'apparition.

Music's general tendency towards confusing acoustic things is perhaps also able to interpret the rôle which the inaudible overtones so manifestly play in evolving the basic musical form elements of melody and harmony. Let us imagine what the unconscious world of overtones would be like. As already mentioned, there would no longer exist differences in tone colour. In their place we would hear the complete overtone chords composed of tiny tinglings like so many tuning-forks sounding together. We have seen how much more laborious and subject to errors would the acoustic thing recognition then become. Instead of relying on the differences in tone colours of which we possess an immediate awareness, we would have to dissect the overtone chord belonging to one particular thing. If, moreover, several acoustic things were to sound simultaneously we would have to sort out first the different overtone groupings belonging to any single thing and beware of wrongly attributing its overtones to another group. This is a thankless task comparable in difficulty to the analysis of a sound graph showing all the superimposed sound waves of many tones and overtones.

This task would be made more difficult and liable to almost certain error if we combined tone sources (acoustic things) emitting identical or very similar overtones; then any single overtone could fit into several possible overtone chords, or overtones belonging to different tone sources could add up to overtone chords not actually there, yet characteristic of the tone colour of some real thing. Our unconscious hearing would be in a position to combine and recombine the overtones into irrational 'thing-free' phantasies of ambiguity.

Our scale and harmonic system brings about precisely such conditions of overtone 'ambiguity' by combining sounds possessing the same or similar overtones. Thus the musician's unconscious hearing of the overtones (which Schönberg assumes) is presented with highly ambiguous overtone mixtures as most scale tones and harmonic chords possess partly identical, partly closely resembling overtones.

But is not ambiguity and doubt a general impression which we (i.e. with our surface perception) gain from the function of our gestalt- and thing-free depth perception? Does not the painter's thing-free unconscious vision do the same? We have to refer again to the example of the rising morning mist in which only segments of houses, fences, and cobblestones become visible and are fused into some phantastic phantom. With this 'faulty' vision we compared the painter's ('thing-free') unconscious vision which cuts up the coherent thing shapes into arbitrary segments and recombines them into abstract patterns, like superimposed masses of light and shade, etc. Similarly, the musician's 'thing-free' depth perception would tear the single overtones from their context within the overtone chord (representing the acoustic thing) and rejoin them into thing-free combinations. Helmholtz came very near to a depth-psychological interpretation of musical forms in relation to overtones. He thought that the close relationship and partial identity of the overtones contained in consonant tones could be expressed in very simple mathematical formulae (though this has not been true for the last few hundred years owing to the 'equal temperament' of our scale which threw the intervals out just a little from their simple interrelation expressible within the series 1:2:3:4:5, etc.; today the artificially adjusted scale intervals can only be expressed in highly complex mathematical proportions). Helmholtz suggested that this simplicity existing in the mathematical relation of the overtones also made for simplicity in perceiving the consonance; the beauty of the consonance was bound up with the ease of perceiving it. But psychologically the identity or close resemblance between forms does not *facilitate* perception. It is difficult to count a row of perfectly similar pearls; slight differences in their shape greatly ease the task. One is tempted to turn Helmholtz's theory upside down and describe the psychological function of overtone identity or similarity in musical form not as simplicity and ease of perception, but the other way round—as the utter confusion and ambiguity of unconscious thing differentiation, an ambiguity dear to our thing-free irrational depth mind.

We came across an almost conscious love of thing confusion in irrational forms of music, such as the modern orchestration technique or the irrational pleasure taken by medieval musicians in the confusion and mingling of the melodic voices. We now see that this love of ambiguity and confusion only repeats, on a higher conscious level, what we must presume to happen on the unconscious level of a thing-free form play with overtones.

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The two thing-free form plays—one on a conscious, the other on an unconscious level—appear to co-operate in primitive forms of music (not only in medieval music, but also in other similarly primitive forms). We may assume that the conscious weakening of acoustic thing perception may be due to the advance of the unconscious 'thing-free' mode of hearing in primitive art. The medieval *organum* was described as the most primitive form of a pre-harmonic polyphony. The main difference between a pre-harmonic polyphony and our later harmonic polyphony consisted in the fact that in pre-harmonic polyphony the several voices were not yet firmly welded into chords (with a single voice carrying the main melody); instead, we assumed a competition of several equally significant melodic lines which confused conscious attention. The *organum*, however, does not quite fit into this concept of pre-harmonic polyphony. There is still one voice carrying the Gregorian main melody to which higher voices accede in a rigid parallel movement. But here the missing element of confusion may be found on the deeper unconscious level; the higher voices move in the interval of the next overtones, such as the octave and the fifth. From the viewpoint of an unconscious thing-free hearing, they would tend to become fused and sucked up into the powerful overtone chord set up by the lower main melody.

Such a confusion is facilitated if the lower main voice is rich in overtones while the higher accompanying voices are thin and flute-like. Now the combination of rich and thin tone colours is a typical feature of primitive music. To our civilized ear the combination of a high boy's voice and a deep male voice, or the combination of resounding drums with squeaking flutes sounds either repulsive or ridiculous. But as so often happens, what appears to us as repulsive or ridiculous is merely the revelation of the unconscious; and this is so with the orchestration technique of primitive music which, in my opinion, expresses the thing-free play with overtones.

Reese comments on a passage of the very early musical theorist Hucbald dealing with the *organum*. He wonders that Hucbald should mention in a single breath as a 'judicious mixing' the *unison* singing together of a man and a boy (which is not even polyphony) and the *organum* (which is already a primitive polyphony). But this identical treatment points to the correctness of our assumption that the medieval enjoyment in 'judiciously mixing' sounds rested directly on the exigencies of the unconscious thing-free play with overtones. The boy with his thin flute-like voice singing high above the man's rich bass voice does not produce a 'consonance' in the modern sense, but follows the primitive orchestration technique of combining two tone sources of which one is rich and the other poor in overtones.

Let us imagine what happens unconsciously in the primitive orchestration combining a low drum and a high falsetto voice which sounds so incongruous to the civilized ear. For an unconscious depth perception which could still hear the overtones, the low drone of the drum would set up a powerful and dense overtone chord which extended up to the highest ranges of human hearing. Apart from this drone we could hear the fluttering of the falsetto which would be almost devoid of overtones. As the falsetto oscillated in the characteristic glissandos of primitive melody it would play a game of hide-and-seek in the thicket of the drum chord, one moment merging with one of its overtones, now re-emerging, only to lose itself again in a tantalizing play of ambiguity and confusion.

We come nearer to a 'civilized' enjoyment of such primitive tone colour combinations in our listening to military brass bands or Scottish bagpipes. We have to consider them as 'archaic' types of music; as such they can sound vulgar or deeply stirring according to our changing mood and disposition. (In this contradictory effect they partake of the twofold impression—Dionysian or 'ugly'—which the revelation of irrational modes of perception generally makes on us.) Military brass bands often combine the tiny squeak of the rare piccolo flute with the thundering roar of the trombone, a wholly preposterous combination of tone colours. But let us try and observe the sound mixture between these two instruments; if we overcome the feeling of ridicule or repulsion we shall soon discern how easily they merge and how the flute's squeak gives an edge to the blunt thunder of the trombone; they indeed join into a 'judicious mixture' of sound.

What is vulgar in one context may rise to the heights of sublimity in another, owing to the same relation to the unconscious. Many a listener to Beethoven's Finale of the Ninth Symphony will be baffled by an unexpected interlude. The dithyrambus dedicated to the spirit of joy is interrupted by a lull; into this telling silence break the grunts and squeaks of a 'quasi-Turkish' military music which lead up to the climax of the symphony. If listened to in the right mood the squeaks and grunts will no longer sound preposterous, but will be transfigured into an angelic chorus.

A similar contradictory effect, again explained by its relation to unconscious modes of hearing, is produced by the music of Scottish bagpipes. The pipes can also be considered as a remnant of an archaic folk-music. They preserve the primitive combination of a low drone with a thin oscillating melody, representing in fact the conscious experience nearest to the assumed unconscious overtone play. The drone is a complex chord reminiscent of the overtone chord and the melody preserves the character of a primitive glissando oscillation. What is more, we can quite consciously experience the alternative merging and disentanglement of the oscillating melody, again of course if we listen in the right mood; then the alternative hide-and-seek movement of the melody will acquire an almost hypnotizing quality which rests on the confusion of our acoustic thing perception.

The alternation between fusion and separation between the droning chord and the melody may also produce illusionary changes in the volume and in the tone colour of the pipe sound. This is particularly noticeable if we listen from a distance or in an absent-minded mood. The whole volume of the pipe sound seems to swell and recede as the melody joins and leaves the chord. This never-ending ambiguity confounds acoustic thing perception which vainly tries to hold the separate tone sources apart. The 'hypnotizing' quality of the pipes either makes us sleepy or stirs us into martial ferocity. Again such contradictory effects are explained by this music's close relation to unconscious modes of hearing. In either case the thing-free ambiguity of the pipe melody would drain our conscious thing perception of its energy charge and would rouse our unconscious mind, which is the seat of our dreams as well as of our most savage instincts.

It has been observed how the harmonic fusion of chords copies the formation of the 'natural' tone colours by the fusion of overtones. There are certain differences, not the least of which is the direction of the repression process. In the repression of the overtone chord usually the *lowest* of the sounds emitted by a particular thing remains consciously audible while the higher ones undergo repression (hence their name 'overtones'). In the harmonic fusion, usually the *highest* is fully retained in consciousness to carry the progression of the main melody as well as to represent the whole piece of music in our memory. (But such a reversal is not uncommon. It is sometimes assumed that the original trend of the melody was downward. This would conform to our hypothesis that the melody first moved in the falsetto ranges of the voice; it would have had to descend from the overtone range in order to become itself a producer of overtones, as happens in our civilized music. Today, however, the downward trend of the melody is reversed; the modern scale is played from the lowest to the highest tone. The archaic Greek scales, however, were still played downward, one of them even being an exact mirror reversion of our *major* scale. The Greeks are reported to have been more sensitive to false notes in the lowest ranges of the melody while we ourselves are hurt more by false top notes. We need not, therefore, attribute all too much significance to the reversal in the artificial tone colour production in harmonic hearing which as we saw tends to choose the highest instead of the lowest tone as the carrier of the main melody. This development may also be connected with the fact that in pre-harmonic polyphony the Gregorian main melody did, in fact, move in the lower voices.)

Apart from such differences, harmonic tone colour fusion differs only quantitatively from overtone fusion. In the overtone fusion the repression of the overtones is almost complete. Careful listening can detect a hint of their existence by the sound of a faint tingling within the body of the whole sound. The harmonic chord fusion however is flexible. Any lower tone can be detached from the chord by giving it a melodic significance of its own and thereby decreasing its contribution to the chord tone colour as a whole. (In this way a dissonance is muted by placing the dissonant chord tone into an independent melodic context which prepares and resolves it.) This very flexibility of the harmonic fusion represents one of its most attractive features. A fusion and 'repression' of the single chord tones takes place, as well as a corresponding production of tone colour, only to the extent of their repression.

I submitted that the capacity of music for generating 'artificial' tone colours (through repressing inarticulate tone steps, rhythms, tone intensities, chord tones) could be construed as a secondary 'reification' process producing new things in answer to the primary destruction of the acoustic things (*natural* tone colours). It imitates the repression of the overtones by the repression of inarticulate musical events and so creates *artificial* tone colours, new acoustic 'things', which often cannot be distinguished from the natural tone colours. It is often impossible to keep apart cleanly the artificial tone colours of a good violin tone or of 'piano touch' from the natural tone quality which the instruments possess owing to their overtones.[1]

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[1] See Chapter XVI for the 'externality' illusion adhering to 'piano touch' which confuses the *artificial* tone colour, produced by playing, with the *natural* tone colour, produced by the piano strings.

Of the many varieties of artificial tone colours in music (glissando, vibrato, jazz rhythm, 'ornaments', etc.) only the harmonic tone colours of chords underwent a finer differentiation within a 'system', i.e. the system of consonances and dissonances, excluding harmony-free chords. We must not overrate this achievement. In the long history of music, the development of the European harmonic system represents only a short chapter which moreover has come to a sudden close in our day. In this transience the overrated evolution of the European harmonic system again resembles the history of 'scientific' realism in European painting which too developed and became arrested within the same comparatively short period.

The European achievement in harmonic articulation was not brought about without sacrifice. It appears that eminence in one system of articulation is often attained at the price of backwardness in other systems (such as the systems of scale and rhythmical articulation). Indian music is said to possess subtleties in rhythmical differentiation in comparison with which our rhythmical sense may well be called 'primitive'. How can our two scales of *major* and *minor* stand comparison with the wealth of scales which existed before the advent of European polyphony? Near-Eastern music still preserves a highly refined system of scales; it might well have developed from the same Hellenistic tradition from which our own music has sprung; but while European music sacrificed to harmonic articulation all subtlety of rhythm and scale differentiation, our Eastern neighbours preserved the Hellenistic tradition. (East-European painting also preserved the non-realistic Byzantine tradition of painting.)

Let us beware of overrating our own artistic achievement. Our music might well appear 'primitive' in scale and rhythm compared with Asiatic music. Keeping in mind the intensely narcissistic character of aesthetic enjoyment, one cannot quite reject the possibility that Western art as a whole might prove inferior to the art of more genuinely aesthetic cultures if only because of its distinct scientific flavour.

Sounds differ in their pitch, duration (rhythm), intensity, and lastly tone colour. Of these four possible differentiations, tone colour is no longer a physical-physiological phenomenon but, as we have seen, a psychological product of 'repression'. Keeping in mind these four possible modes of differentiation, we realize that language and music happen to have chosen different systems of articulation. It is not unreasonable to speculate that speech and music have descended from a common origin in a primitive language which was neither speaking nor singing, but something of both. Later this primeval language would have split into different branches; music would have retained the articulation mainly by pitch (scale) and duration (rhythm), while language chose the articulation mainly by tone colour (vowels and consonants). Language moreover happened to become the vehicle of rational thought and so underwent further influences. Music has become a symbolic language of the unconscious mind whose symbolism we shall never be able to fathom.[1]

The articulation systems of speech and music still overlap. Archaic languages, such as Chinese, have retained a rudimentary articulation according to pitch; the Chinese monosyllabic words acquire a different meaning if 'sung' in a certain inflexion. In European languages, only a whole sentence may acquire an affirming or questioning meaning according to the ascending or descending 'melody' of the sentence.

The exception in music which overlaps into the tone colour articulation of speech would be European harmonic music. It is not commonly known that speech sounds differ in their tone colour like musical instruments. It has not proved impossible to construct a speech machine which rapidly combines different tone colours such as those possessed by musical instruments. Human speech thus resembles a progression of changing tone colours following each other with unbelievable rapidity. Musically, such quick change would defy articulation. How slow is the progression of harmonic tone colours compared with the machine-gun speed in which the speech sounds proceed. The articulation of speech articulation, in its selectiveness and accuracy, far surpasses the achievement of musical articulation, whether of pitch, rhythm, intensity, or now harmonic tone colour.

We have become accustomed to considering particular feats of surface articulation as secondary processes reacting to undifferentiated modes of unconscious perception (Nietzsche's 'law of *strict proportion*'). The visual aesthetic sense would have arisen in response to the undifferentiated chaos of the unconscious gestalt-free modes of perception.

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[1] Freud shows that the unconscious mind preserved and developed further an archaic visual language as an obscure means of symbolic expression; it is the symbolic imagery of dreaming which is a still living visual language of the unconscious mind. In primeval times it might have still served as a vehicle of social communication, but is now retained merely as a language of the unconscious mind. Similarly music would represent an archaic acoustic language that is now degraded into a symbol language of the unconscious mind which in this function is still developing independently. We could not penetrate by immediate introspection into the unconscious thing-free symbol play of the overtones; nor can we hope ever to be able to translate the symbolic message of music in rationally comprehensible words.

The incredible feat of tone colour differentiation in human speech makes it legitimate to ask whether the human faculty of articulate speech did not arise in response to a particularly strong unconscious tendency towards obliterating all tone colour differentiation which would be equivalent to acoustic thing destruction. Is there an indication of an unconscious tendency which levelled down all acoustic thing differentiation by projecting a totally undifferentiated meaning into any sound perceived?[1]

Freud indeed ascribes to our listening to music an undifferentiated projection of an anal significance, and comments on the fact that our most sublime experiences would thus come from what is basest in the human mind. I cannot go, in this context, into the reconstruction of a possible stage in the prehistoric human development when the sense of hearing would have been flooded by an undifferentiated libido in a similar way in which the visual sense would have been affected in the 'pan-genital' crisis of the voyeur libido. Such an assumption will make sense in a depth-psychological analysis of the cultural process as a whole which, however, goes far beyond the possibilities of this aesthetic investigation. The dominant rôle which we have attributed to the genesis of anal disgust as a differentiating factor would become clearer if we were to envisage as its function the redifferentiation of an undifferentiated anal libido spreading to the other libidinous zones. It would then appear that the undifferentiated (pan-anal) libido spread beyond the genital zone to the oral activity of drawing in and expelling the breath. K. Abraham[2] could show that the anal libido of 'retaining and then expelling' could spread to very complex cultural activities such as the handling of money (see also Chapter IV, p. 81).

Singing and speaking involves an interference with the natural rhythm of breathing which can be best explained by the compulsive transfer of the primitive rhythm of 'retaining and then expelling' to the oral activity of breathing. (The unconscious identification of the breath with a flatus to which Ernest Jones has drawn attention points to the same assumption.) In singing the breath is not allowed to flow away freely, but is stored under increasing tension and then given off gradually in little explosions. This inhibition of the oral expulsion of air would be psychologically identical with the mysterious inhibition of anal expulsion by anal disgust in which I have come to see more and more the starting point of all human civilization. Thus the spreading of the undifferentiated anal libido would also have carried with it the inhibiting function which corresponds to the effect of anal disgust in excretion. The explanation of the technicalities of singing and speaking, such as the manipulation of the breathing function from a compulsive inhibition, has one advantage; these technicalities cannot easily be explained from a rational insight that a voluntary inhibition of the breath would enable sustained singing or speech. The human faculty of rational deliberation probably came *after* the invention of speech, not before. Though I cannot follow Róheim's explanations of the basic cultural inventions (because they usually refer only to the genital level), one has to agree with him that these basic inventions are the dumb expressions of inarticulate unconscious urges rather than the result of rational thinking.[1] The most important cultural achievement, speech, would be no exception, and represents a compulsive blocking and explosive release of the breathing function.

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[1] The assumed tendency of unconscious hearing towards confusing overtones would also point to an unconscious levelling of acoustic thing differentiation, i.e. thing destruction.

[2] *Psychoanalytische Studien zur Charakterbildung* (Intern. Psychoanalytischer Verlag, 1925).

All these far-reaching problems cannot and need not be settled here. It is enough if we realize that Freud's concept of an undifferentiated mode of hearing in listening to music fits in with our general conception that all efforts of articulation are secondary processes reacting to archaic undifferentiated modes of perception. The incredible speed and efficiency of speech articulation would thus indeed react against a particularly strong unconscious trend towards levelling the differentiation of the speech sounds.

We said that speech was also the basis of rational thinking as against music which has remained the irrational symbol language of the depth mind. That speech should have become the vehicle of thinking may have something to do with its choice of tone colour as the medium of articulation. If the articulation of speech and music is directed against an archaic mode of hearing which levelled all thing differentiation, the gradual enrichment of speech articulation would have developed concurrently with a gradual reintegration of acoustic thing perception. In other words, while the acoustic thing perception began to redifferentiate the tone colours of the real things in the outer world, speaking, and the process of thinking based on it, would have built up a replica of the external world in the internal world of ideas. In a stage of human development where the tone colours as acoustic things would still have possessed the same biological significance as today the visual things (outlines) possess, the first 'artificial' tone colours of articulate speech might have represented directly the external things themselves (secondary reification). No more perfect symbolization is possible in the realm of hearing. In this way the choice of tone colour for the articulation of human speech may have allowed us to use language as a symbol for our dealing with external reality.

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[1] I have described elsewhere the derivation of the taming of the fire—which is the first 'scientific' invention—from the oral Prometheus urge. I hope to show in a future publication how the 'burying' of the seed and also the 'burying' of the dead in agricultural civilizations can be construed as a compulsive activity which is related to anal disgust.

XI

Thing Destruction and 'Abstract' Imagery

EVERY act of creative thinking involves the disintegration of 'concrete' thing perception into the 'abstract' images or ideas of creative thought. I will now try to show that the first phase in creating the 'abstract' thought is a return to the undifferentiated thing perception of the child or to the lack of thing differentiation in primitive thought. The second phase 'reifies' this undifferentiated perception into a new concept of external reality, i.e. an 'abstract' thing. The act of creative thinking may perhaps be conceived as repeating the primordial obliteration of all thing differentiation and the slow reintegration of the thing categories in the internal world of thought. (I shall later suggest that the difference between abstract 'things' and abstract 'ideas' which latter are the instruments of thinking, lies not so much in the different imagery underlying them which evades us anyway, but in the different quality of the 'reality' and 'truth' feelings cathecting them; see the beginning of Chapter XVI.)

There exists some doubt as to how far 'abstract' thinking can make use of imagery. In a controversy reminiscent of quaint medieval disputations it is sometimes argued that only concrete individual things can be visualized, but not abstract things. To begin with, such dogmatic argument does not take into account what we have already found out about our thing perception, namely that generally it possesses hardly a trace of definite form experiences or 'good' gestalt. If I try to call up the mental image of a certain dog I have often seen in the neighbourhood and then the 'abstract' idea of a dog, I, for my part at least, have a far more vivid image of the 'abstract' dog, though when put to the test, I could not describe the definite gestalt of its head, neck, legs, etc. We have seen that the everyday perception of the real things proceeded rather by 'repressing' than by 'articulating' definite gestalt experiences. Empiricistic philosophies, however, tend to take for granted that the child learns to know first the many single form aspects of a thing (for instance several perspectivic foreshortenings) and then gradually, by experience, conceives that all these different form aspects represent the same single thing. The concept of a certain thing would represent the sum total of all its abstract form aspects as seen from different viewing angles, in different illuminations of its tone and colour, etc. Such an idea again presupposes that our thing perception proceeds from the concrete vista to the abstract category of a thing, which assumption however is not borne out by facts. Prof. Gombrich, in his already quoted paper, rightly stresses that 'abstraction' in artistic perception is not a complex achievement gained by 'abstracting' the artist's concrete view of nature, but rather a return to the less differentiated still concrete thing perception of the child. Gombrich says: 'There is an old music-hall joke describing a drunkard who politely lifts his hat to every lamp-post he passes. Should we say that the liquor has so increased his power of abstraction that he is now able to isolate the formal quality of uprightness from both the lamp-post and the human figure? Our mind . . . works by differentiation rather than by generalization, and the child will for long call all four-footers of a certain size "gee-gee" before he learns to distinguish breeds.'

In Chapter II we pondered on the then inexplicable fact that the child should treat as the same such different-looking things; we saw, however, that the adult too reverted to such an undifferentiated thing perception in his dream visions. Now we understand why this is so easily possible. Thing perception in general allows little or no awareness of pure form which becomes repressed under the constancies. It is in fact the aesthetic sense which enables us (or is it perhaps better to say 'forces' us?) to appreciate pure form for its own sake; the very young child does not yet possess such a sophisticated faculty which, as far as I can judge from my limited experience, only develops around the fifth year of life shortly before the genital Oedipus stage (this temporal coincidence would point to the near-*genital* level of the aesthetic experience). Hence awareness of pure form does not precede the awareness of real things; the young child knows only of 'things' which, because of their highly undifferentiated structure, appear to us as queer 'abstractions' (they are 'too general'; see Chapter II).

One may ask how the child is able to refine his thing differentiation if he is not guided by similarities in pure form. The child would narrow down his all 'too general' thing perception into more differentiated concepts only as far as his libido development guides him. His mother might have already attained the status of an individual while all males are still 'papa'. Even adults do not arrive at the perception of an individual if they are not prompted by a libidinous interest. The flies buzzing around the lampshade are not perceived as individuals; yet an entomologist might marvel at the coarseness of our senses which cannot appreciate such fundamental differences in shape. The owner of the (at one time so popular) 'flea circus' might perceive at once the individual marks not only of his performers, but of any other likely member of his establishment. As long as our libidinous interest in certain things is not awakened it does not help to 'train' one's abstract 'form sense' to make the necessary distinctions. We usually form bonds of love and hatred only with members of our own race; the members of foreign races, even when we have studied their racial characteristics scientifically, are often undistinguishable from each other. 'All Chinese look the same', but not to the Far East trader who has lived long enough among them to form libidinous ties with a few single persons, and he will then suddenly discover that all the other members of the race have acquired form individuality. Even the most scientific study of photographs and other ethnological evidence cannot refine the 'form sense' which the development of an object libido, focused perhaps only on a single person of that race, can achieve without apparent effort.

On the other hand, 'abstraction' in artistic and scientific perception involves a libidinous withdrawal from external reality which permits the individualized thing perception to disintegrate (as far as this individuality is at all achieved).[1] The retrogression can be considerable, reaching down to that infantile 'oceanic' state when the child cannot even differentiate his own ego from the external world. Plato's famous simile of the captive reflects a philosophical vision which has retrogressed to a pre-natal state; the captive, lying bound in a cave averted from the light of the external world, may symbolize the unborn child in the womb. Freud showed us that the mystic in his 'oceanic' feeling of union with the Universe contemplates an infantile state of consciousness before the formation of a separate ego. Now we come to assume that even creative thinking can reach these deepest layers of consciousness when the human mind has not recognized the separateness of the external world; a more 'thing-free' state of perception cannot be conceived. While the mystic, however, remains *statically* in his calm religious rapture, the creative mind is able to reify *transitively* the thing-free vision into a rationally comprehensible idea or image. In his simile Plato conveys the best summing-up of his view about a transcendental world of ideas. The thing-free contemplation of the thinker's inner world is transmuted into a new 'abstract' idea or image which is able to interpret the external world in a new way.

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[1] This libidinous withdrawal in scientific creation corresponds to the libidinous withdrawal underlying the artist's thing-free vision.

Creative thinking is not always as dramatic. But the 'abstraction' of the creative vision again represents a disintegration of adult thing differentiation into the more fluid and flexible 'abstract' vision of the child under the influence of a parallel disintegration of the object libido. Varendonck, in his repeatedly quoted works, has described in a masterly way how the creative mind tries to delve into the flux of this thing-free, abstract vision and bring to the surface a more crystallized image. Suddenly the blurred boundaries between the things fall into a new definite pattern comprising new things and thing relations which are allowed to rise to the surface. Thing destruction has led to thing re-integration (secondary reification). The new 'abstract' thing will carry an image just as clear and plastic as any previously existing thing category.

In *Art Now*[1] Sir Herbert Read attributes a more general significance to a description of poetical thinking given by Francesco De Sanctis which he finds applicable to all creative imagery. 'When a subject comes into the brain of a creative writer, it at once dissolves that part of reality which suggested it. The earthly images seem to fluctuate, like objects in a mass of vapour seen from above. The figures—the trees, the towers, the houses—disintegrate, become fragmentary. To create reality, a poet must first have the force to kill it. But instantly the fragments draw together again, seeking one another, with the obscure presentiment of the new life to which they are destined. And the first real moment of creation is the moment when those fragments find a centre around which they can press. It is then that the poet's creation takes on a definite form. It is born and lives, or rather develops gradually, in conformity with its essence' (abridged quotation). If a scientific thinker conceives a new 'abstract' thing it will, in the secondary process of reification, develop a new life of its own and become as 'real' and plastic to him—or rather more so—than the images representing concrete individual things. We saw that a greater or smaller degree of abstraction was inherent in any thing perception, abstract or concrete, and that if anything abstract things possessed more vivid images than did concrete ones. We shall explain plastic vividness not as a function of a precise 'good' gestalt, but of the repressed processes of perception fused into an image. The greater dynamic tension active in any process of creative imagery may imbue this imagery with greater vividness than a passive recollection of some concrete thing, just as the vague dream images may excel our waking perceptions in plastic vividness. The whole problem of 'abstract' imagery is due to our misunderstanding of imagery on a lower level of the mind. We are liable to miss the 'abstract' tracts in mental imagery owing to their less differentiated structure.

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[1] Faber and Faber (1933), p. 74.

We have come more and more to assume that consciousness continually oscillates between different levels of form differentiation, the lower of which are inaccessible to the surface layer. Freud, in his later speculations, described remembering as a discontinuous process which selects (differentiates) certain structures from the in itself inarticulate sensory material. The fact of consciousness would only occur in the intermittent differentiation process of the memory system and therefore be discontinuous. We may have to make this picture somewhat more complex by assuming *several* perception and memory systems each combing the common stream of sensory material for structures fit for its own particular level of differentiation; 'consciousness' would oscillate between these different differentiation systems and so produce several discontinuous memory traces in each of them in turn. From the viewpoint of the surface memory system, the imagery on the lower levels would be inaccessible—'unconscious', 'abstract' as it were.

As this rhythmical oscillation would be inherent in any act of perception, any seemingly fully conscious experience would contain some inarticulate 'unconscious' material. Varendonck arrived at the same concept of a cyclically displaced consciousness; he came to assume that any act of perception, however short (like the perception of a spark), would represent a cyclical alternation between different systems of perception. The precise memory image which finally enters consciousness is preceded by a split second of doubt and ambiguity; then the dream hallucinations of the depth mind intrude, but are not allowed to enter the final articulate memory image which represents our conscious perception, and so remain structurally repressed.[1]

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[1] D. O. Hebb assumes a 'phase sequence' of cortical events preceding every conscious perception; P. Schilder thinks that every perception runs through a more primitive (infantile) stage before it is consciously articulated. (See p. 189 n.)

It remains to be seen whether Varendonck's findings will not lead to a new concept of mental functioning. If any act of perception, however short, contains rich unconscious processes (hallucinations, etc.) we might be able to revise the awkward (meta-psychological) concept of several simultaneous mental processes occurring in different layers of the mind by a single concept of cyclical alternation, expressed solely in terms of time and dispensing with the current spatial concept of mental stratification (strata, layers). We have repeatedly seen that we have no right to judge mental functioning from our 'surface' concepts of time. The infinitesimal split second of dream-like ambiguous vision contained in the cycle of any perception might be quite sufficient to carry on—discontinuously—the many complex unconscious processes which psycho-analysis has detected in the unconscious mind. Any conscious experience would contain complex unconscious processes scanning several 'layers' (systems of differentiation) within our mind and would thus set into motion or keep supplied several mental processes on different 'levels' of the mind. Thus what—very incongruously—we may still call 'consciousness' (we have no other term) may in turn touch off several seemingly continuous processes as it oscillates between the different memory and perception systems, like the electric current in television transmission which touches off in turn the many elements in the television screen so that their action seems to consist of several simultaneous processes.[1]

The double rhythm of creative thinking shows the secondary process of reification better than the creative process of art. The dynamic approach of psycho-analysis allows us to understand, or indeed to expect, that the scientist's stronger grasp on the external real world should derive from a primary libidinous withdrawal from reality which disintegrated thing perception. His memories or perceptions of real things dissolve into less differentiated 'abstract' images; these are then reified and in their interconnexion build up a replica of the external world of things in the internal world of thought. It may be that the same tendency to thing-free perception which arose towards the closing Middle Ages also stimulated creative thinking and with it gave birth to the greatest achievement of Western culture, its scientific spirit. Thus, secondary processes of reification would have been responsible for all three typical phenomena of Western culture—its scientific realism in art, its harmonic polyphony, and lastly its scientific conquest of reality (see also the beginning of the *Postscript*).

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[1] In our discussion of peripheral perception we shall realize that by far the greater part of the sensorial material serves no better purpose than to be repressed from the surface memory image and to feed dream-like hallucinations of which we hardly ever become aware.

In the beginning of this century, the reification processes began to fail in all three branches of culture; surface perception gave way at last, in order to reveal the irrational layers of our own mind.[1] In Chapter II (p. 37), I showed that the patently gestalt-free structure of early twentieth-century art was not altogether new. Traditional art too had contained gestalt-free elements to an increasing extent. But as long as the surface gestalt could maintain itself against the growing pressure of the hidden gestalt-free perceptions, the advance of gestalt-free forms only led to a (secondary) increase in effects of 'good' gestalt and plastic power which I called 'plastic mannerisms'. When at last the gestalt-free forms of depth perception broke through in modern art the transition appeared altogether abrupt, though the tendency towards strengthening the gestalt-free structure of art had been growing all the time.

It is impossible to keep apart the gestalt- and thing-free aspects of twentieth-century art. The eruption of the gestalt-free form elements destroyed in a single act both the 'good' unambiguous gestalt and the meaningful 'thing' façade. Moholy-Nagy[2] observes that allegedly 'abstract' form elements in certain compositions by Kandinsky and the young Matisse could be conceived as enlargements ('close-ups') of small, inconspicuous form details in Cézanne's paintings. Here the extraction of gestalt-free form elements and their enlargement into a composition destroys also the 'thing' meaning of realistic art. (The catastrophic break-through of inarticulate and thing-free forms in 'modern' art is to be distinguished from the gradual enlargement of inarticulate forms which accompanies the general articulation process of the artistic form language. In the decadence of the Gregorian chant we can observe how the hymn tunes were gradually protracted into a slow drone while small ornamental passages were broadened into new independent melodies. Beethoven noted the speed of his music much faster than we could enjoy it today. This slowing down may allow us to enjoy as part of the musical surface gestalt what originally may have been merely a transitive inarticulate form element hiding from conscious articulation, which goes to show how irresistible the secondary articulation process is which transforms the Dionysian experience of a work of art into a different more articulate enjoyment.)

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[1] Psycho-analysis, at the same time, lifted off the 'surface' layer of all human activity; see Bergson's suppression of the reification in philosophic intuition, p. 34.

[2] Moholy-Nagy, *The New Vision, etc.*, The New Bauhaus Books (London, Faber and Faber, 1939.)

The loss of a 'thing' meaning in modern (abstract) art is far more spectacular than these gradual changes in the gestalt structure. It freely manifests the thing-free basis of art reached after the long-drawn-out withdrawal of the libido from the external world which started in the Renaissance. It is of interest to note that a psychologist not usually associated with depth-psychological thinking, the American Gestalt Psychologist Rudolf Arnheim,[1] grasped the hidden affinity between the highest evolution of Western realism and modern abstract art. He says: 'The aesthetic assertion that it did not matter whether a work of art represented a cabbage or a madonna came from a school of realists. Therefore, the rapid change from high Impressionism to highly abstract styles, such as cubism or non-objective art, is not necessarily what it appears on the surface, namely a complete volte-face from the most careful service to reality to the boldest disregard of it. The extreme concreteness of realism as well as the extreme abstractness of some modern art may rather express an identical aloofness from reality' (p. 81)—admirably said! There exist, no doubt, types of realism which express a true libidinous interest in external reality and the things found there (we shall call this other realism a truly 'libidinous' realism); but the 'scientific' realism which is our proud Western heritage is a careful observation of one's own highly subjective perceptions rather than a loving representation of the external things, and is gained by an introspective attitude which withdraws from outer reality.

On the other hand, our abstract art need not be altogether detached from reality. There are again two types, a true abstract art which is merely an aesthetic exercise in truly meaningless abstract gestalt (ornamental art is of this kind) and secondly a pseudo-abstract art which merely reproduces the undifferentiated thing perceptions of the depth mind. These highly undifferentiated images are akin to the 'abstract' imagery of creative thinking and are 'abstract' only from the point of view of surface perception which cannot grasp their undifferentiated structure. We remember Gombrich's criticism of the term 'abstraction'. According to him, abstraction may simply mean a going back to the undifferentiated perception of the child, or a weakening of our rational-adult faculty to differentiate for instance a lamp-post from an upright human figure. For the infantile and undifferentiated depth perception such 'abstract' forms may still possess a 'thing' meaning except that they can no longer be reified on the level of surface perception. According to Gombrich, the child who uses a stick for a hobby horse does not merely want to 'imitate' the shape of the horse in the 'abstract' shape of a stick. The stick *is* the horse. The spirals and whirls of the Australian aboriginal art can be made to represent almost anything though, to us, they are just 'abstract' art. Only because the 'abstract' symbols of neolithic art did in fact represent the external reality, could they become the first true 'writing' of Western mankind. (But even then there existed pictographic signs which imitated—in the manner of scientific realism—the external forms of things. Thus, as today, several types of art could exist side by side.)

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[1] Arnheim, Rudolf, 'Perceptual Abstraction and Art', *Psychological Review* (1947), LIV, 2.

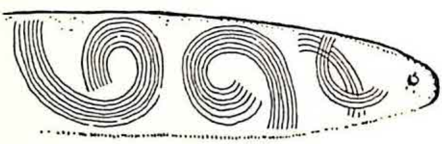

FIG. 12. The whirl 'ornaments' on a churinga (Australian aboriginal art).

It is possible that today the two types of abstract art are found together. The climax of thing destruction in Western painting might have been reached in the first two decades of this century; it is aptly symbolized in that provocative painting in the New York Museum of Modern Art which shows a white patch on a white canvas (Malevich). An almost equal lack of differentiation is found in Mondrian's exclusive use of verticals and horizontals or in Pasmore's spirals (see Plate VI) which, to the average spectator, appear as an exercise in the simplest geometrical forms. Against this ascetic poverty of forms (indeed reminiscent of the exclusive use of spirals in Australian aboriginal art) must be put the often heard claim that abstract art did not want to imitate reality, but tried to make new *things* which could take their place side by side with the other real things. Here we may find the roots of a new process of reification, turning back towards reality with a true (no longer 'scientific') libidinous interest. To use Gombrich's term: the new abstract forms do not depict things, they represent (are) the things on that deeply unconscious level of an undifferentiated thing perception from which these artists would draw their inspiration. The 'abstract' forms, moving from the ascetic self-destructive poverty of their beginning, may multiply and combine according to their own law of growth and may appear destined to a new complexity which stands comparison with the variety of forms in the past 'scientific' realism. We compared the totally undifferentiated abstract art with the 'abstract' art of the primitive or of the child for whose 'too general' thing perception the simplest geometrical forms may represent almost any real thing.[1] Now, the child in his development achieves increasingly differentiated thing perceptions which—for a long time—are still unaccompanied by an awareness of definite, truly 'abstract' gestalt experiences (this development comes, as we thought, only at the end of infancy). In the same way, modern 'abstract' art tends to become more differentiated in its vocabulary of form elements without yet being unduly influenced by the purely formal gestalt aspects of the things (as happens in the 'scientific' realism). If we go back to the later evolution of the partly abstract, partly pictographic art of neolithic civilizations, we observe how the 'libidinous' realism of Old Egyptian art successfully resisted the growing awareness of abstract gestalt aspects (see next chapter).

That for the artist's unconscious perception these independently evolving 'abstract' signs can stand for outer reality is no more surprising than the child's often described lack of concern for pure form aspects which lumps together under a single category of things many objects of widely differing abstract gestalt aspects. As for the child, only the growth of the object libido cathecting these signs is all that matters.

We have therefore to distinguish between the growing awareness of a truly abstract gestalt (which belongs to a higher level of development) and the seeming 'abstraction' of an imperfectly differentiated thing perception which is valid only on a lower level. Similarly, in speaking of 'abstraction' in the artistic language, we have to make clear to which evolutionary level we are referring.

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[1] Compare the churinga (Fig. 12) with Pasmore's mural (Plate VI). Mrs. Lauretta Bender reports that the earliest children's drawings invariably show whirls and vortices. P. Schilder accepts that the children consider these whirls as representations of their perceptions. See his *Mind: Perception and Thought, etc.* (1942), p. 146.

XII[1]

The Turning Points in Western Art History

ONCE the child acquires the faculty of appreciating abstract gestalt for its own sake, a development which we placed roughly around the fifth year of life, it is no longer possible for him to accept almost any geometrical shape—a stick, a whirl, etc.—as representing real things. His imagery begins to be a compromise between his libidinous symbols and a partial realization of abstract gestalt. This compromise is necessary owing to the basic dualism of principles which from then onwards will cut through his perception processes, i.e. an abstract gestalt articulation and a meaningful thing perception (for the rivalry between these principles see Chapter XIV).

Similarly, an art which follows a truly 'libidinous' realism will at some point of its evolution have to make concessions to a partial realization of the abstract gestalt aspects of the real things. Such an art appears to be Old Egyptian art which had emerged from the geometrical 'abstract' art of neolithic imagery, and after some vicissitudes became crystallized in that semi-realistic style which we know so well. Professor Gombrich, in his already quoted paper, follows Mrs. Frankfort-Groenewegen in her assumption that the funeral paintings of Old Egypt did not mean to 'depict' reality (with what I would call 'scientific' realism), but represented the real things themselves. The Egyptians may have been perfectly able to arrive at our more scientific realism, but preferred to maintain their peculiar style which to my mind constitutes a compromise between a still 'libidinous' realism (bent on 'making' rather than 'depicting' things) and a partial consideration of abstract gestalt aspects. As they were not yet ready to destroy the constancies and discover the underlying thing-free distortions they could not possibly have appreciated the later more 'scientific' painting of the Renaissance as at all realistic. In this manner the dualism of a libidinous and scientific realism implies a 'Relativity' of realistic thing representation.

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[1] This and the next chapter are largely based on a lecture, *A Psycho-analytical Evaluation of Abstract Art*, given at the Institute of Contemporary Arts, London, in May 1951.

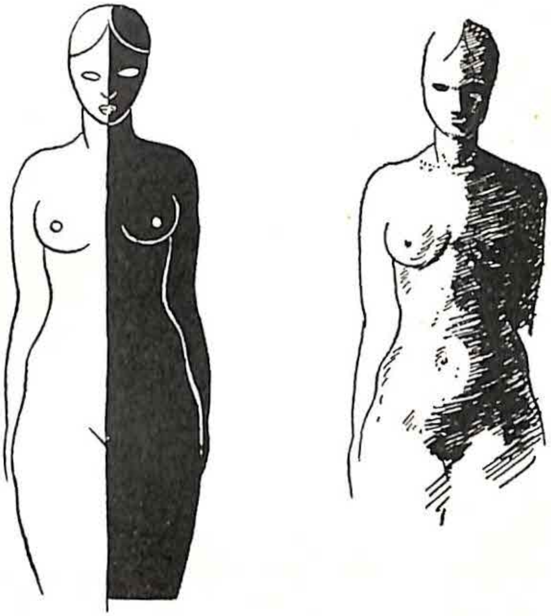

FIG. 13. The half sea-green and half flesh-coloured body of the Hell-Goddess *Hel* compared with the Chiaroscuro illumination of the human body.

The reaction of a highly artistic people not yet ready to discard the thing constancies, who therefore rejected the scientific realism, is well documented by the reception of Western realistic painting by the Chinese when they first came into contact with Western painting. The Baroque painters working at the Chinese Imperial Court were allowed to practise perspectivic distortions as an exotically pleasing style of painting. But the Chinese public stopped short, at the time, of assimilating the (Chiaroscuro) distortions of tone values which as we have seen are repressed by a stronger constancy than are the perspectivic distortions of form. The Chinese could not appreciate why the Chiaroscuro painter should paint the shaded half of a face in a darker tone unless some *real* abnormality had discoloured the skin, an idea which must have been repellent to them. Some of Rembrandt's self-portraits which steep half of his face into almost total darkness would have seemed to them to be like cutting half of the face away altogether or would have appeared in the way in which we see the horrifying image of the Nordic Hell-Goddess *Hel*, who is represented flesh-coloured on one half of her body and sea-green on the other. Their reaction is not unlike our own when we were first faced with the 'arbitrary' distortions of reality in early twentieth-century ('modern') art. I will try to show later on that at least some of modern art's distortions are determined by unconscious thing-free perceptions which we—like the old-time Chinese—cannot assimilate into surface perception.

The painters of Old Egypt as long as their constancy of form (repressing perspectivic distortions) remained unimpaired, could not have appreciated the somewhat extreme perspectivic distortions of early Renaissance painting as being realistic. With their undiminished libidinous interest in the constant unchanging forms of real things, they would have expected painting only to represent these 'real' constant forms; hence they could not possibly have seen in the 'mock' distortions of the human body, caused by extreme foreshortenings of perspective, anything but disgusting and uncanny malformations of the human form—just as we ourselves might view with dismay the contortions of the anatomy found in our own 'modern' art.

For a long time, a strong undercurrent of doubt and ambiguity (so welcome to the symbolic form play of the depth mind) must still have run on underneath a growing appreciation of the laws of perspective, an ambiguity which has not quite dried up to this day. One feels how in the first exuberant experiments with perspective durnig the early Renaissance, the double meaning of perspective must have lain still nearer to the surface and how the artists must have made an almost conscious use of it. In his haunting picture of the dead Christ, Mantegna foreshortens the prostrate corpse into a shapeless mass where the rigid face is telescoped towards the feet. Here the ambiguity, whether the squashing of the body was 'real' or only a play with perspective, is still fully felt and exploited emotionally (see Plate X). Kurth Rathe[1] speaks of an 'unending list of dead' (*Totenliste*) in European painting where we find a telescopic squashing of the human body through extreme perspectivic distortion. Rathe, with great sensibility, points out the symbolic ambiguity in such extreme cases of perspectivic foreshortening. The perspectivic squashing of the prostrate body may symbolize both the ecstasy of love and procreation, as well as death; or if a person seen from behind turns up his head, and a quaintly foreshortened portion of the face, mainly the triangle of nose, becomes visible, this upturned head may be used either as symbol of ecstatic devotion in persons who look upwards to heaven or as the antithetic symbol of blasphemy and sneer in scenes of the Crucifixion where one of the tormentors turns up his head sneeringly to the dying Christ. Rathe quotes Freud's discovery that the symbol language of the unconscious mind favours the use of such 'antithetical' symbols which is also found in archaic languages ('altus' denoting 'high' as well as 'deep', etc.). We can take the antithetical symbolism of perspectivic painting as additional evidence for the assumption that the discovery of perspective was not a coolly rational achievement but, like all creative efforts, served in the first place to express an irrational symbolism.

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[1] *Die Ausdrucksfunktion extrem verkürzter Figuren* ('The expressive function of extreme foreshortenings in figures'), The Warburg Institute (London, 1938).

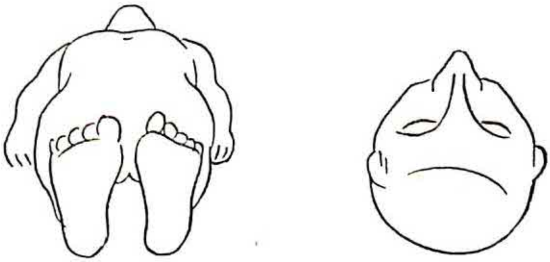

FIG. 14. The extreme foreshortenings of the prostrate body and upturned head.

We know that depth perception projects a sexual symbolism into any part of the human body. The new form ambiguity which perspective introduced into the representation of the body gave a new freedom to this unconscious form play. It was no longer necessary to depict the various parts of the body in their 'real' and 'constant' size and proportions. Any limb could be lengthened, shortened, or contorted to express a hidden symbolism (for instance of castration).

How sexual symbolism can make use of the ambiguity through perspective was made clear to me in a casual observation. A very effective poster supporting the British Savings Campaign during the last war was published in a large and a small version. It showed a tough-looking soldier in battledress and with full equipment. The bigger version showed his figure, the smaller only his head. His face bore a kindly broad grin.

For this reason I could not quite account for the boisterous virility which permeated his face only in the big version, but seemed to be missing in the small version showing only his friendly face. My interest was aroused by the different expression of the two images and I checked painstakingly whether the features of the faces in both posters were really identical in every detail. I knew from the analysis of other paintings that the expression of a face is greatly influenced by background forms which escape conscious perception but nevertheless influence the general impression of a painting;[1] the obtrusive virility of the face in the bigger version could be caused by the unconscious perception of some form feature outside the face. The smaller version would lack this feature and therefore also lack virility. I covered successively different parts in the bigger version and tried to observe whether, by doing so, I could lessen the aggressively virile expression of the face so that it would assume the more kindly look of the smaller version. I found that the virility was connected with a container fastened to the left hip of the figure. I concluded that the container had unconsciously a phallic significance. Its position on the hip was no obstacle to this interpretation. In acts of symbolic castration the place of the mutilation is often shifted sideways (Prometheus' punishment, Shylock's bargain, etc.). Suddenly it occurred to me that the perspective of the drawing could be easily re-interpreted. The container now appeared as a huge outgrowth growing from the centre of the figure. The very crudeness of this re-interpretation appeared to me the key to the somewhat offensive virility of the drawing. Poster art needs overemphasis and is therefore less inhibited in its means of expression than other art though, of course, the artist was not conscious of the pan-genital form play in his bold and provocative drawing.

Perspective is ambiguous in itself and its distortions of constant size and proportions can often be interpreted in more than one way as happened in the case of the poster. The 'discovery' of perspective is hailed as a rational achievement of art enriching our knowledge of nature. Psychologically, it is nothing of the sort. It allowed the full ambiguity prevailing in the depth mind to intrude into the well-ordered and rational world of thing constancies. Had the rising thing-free distortions (first of form, then of local tone and at last of local colour) succeeded in overthrowing altogether the constancies repressing them, our thing perception would have ceased being the quick and reliable instrument for informing us about external reality. As it is, we are still able to tell at a glance, when looking at our dinner-table, that it is laid with round plates of equal size though, if we choose to do so, we may—not without difficulty—realize their manifold elliptical shapes distorted through perspective. It is only because the thing-free distortions breaking through into surface perception became merely an alternative way of looking at reality and have not obliterated the biologically all-important constancies that we are able to rejoice at the new wealth of form which the realistic painters' thing-free vision has discovered for us.

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[1] So, for instance, from my auto-analysis described on p. 49.

I am at pains to point out that the primary creative vision which 'discovered' the thing-free distortions of realistic painting had none of the precision and rationality which we are wont to associate with scientific discovery; it partook of that lack of differentiation, ambiguity, and symbolic charge which characterizes any creative depth perception. The painters of the Renaissance need not have been aware of this irrational character of their discoveries; it may have remained unconscious, like the evasive 'abstract' imagery of creative thinking or the overtone play of music. But we must, on no account, mistake the secondary reification which marks the final assimilation of the thing-free distortions as realistic mannerisms for their primary meaning in artistic creation.

The realistic painter will employ the realistic mannerisms for mainly two reasons which already belong to that secondary stage of reification. The first is the enormous prestige which these mannerisms attained as scientific 'discoveries', in the form of a 'law' of perspective and the like. This parading as scientific laws allowed the teachers of art to demand their application in the name of science. The painter who went his own way ran the risk of being accused of breaking fundamental laws of vision. We shall speak of this 'externality illusion' besetting realism in Chapter XVI.

The second reason for applying the realistic mannerisms I have already mentioned. They gave to painting a new plastic illusion of reality. It is this immediate sensuous gratification, more than their austere prestige as scientific laws, that would explain their great appeal to the artist. In this context I will be content to make out that the plastic effect of our 'scientific' realism belongs to a secondary stage of reification which reacts against the primary break-through of the thing-free distortions. We discussed in Chapter IX the libidinously detached introspective attitude which is necessary for realizing fully the distortions of perspective, etc. Only by looking at the scene surrounding us as though it were a flat meaningless pattern can we become aware of the more extreme foreshortenings or of the mosaic of light and shade (Chiaroscuro) breaking up the boundaries of the real things.[1]

The general public's attitude to realistic painting greatly differs from the primary 'flat' vision. Only the connoisseur may, like the artist, direct his attention to the abstract flat pattern produced by the play of perspective, Chiaroscuro, or open-air colouring in the picture's structure. So as not to be disturbed by the libidinous meaning of the painting (its subject), he might choose to view it upside down in order to appreciate its merits as an abstract pattern. But the average spectator cares little for the new wealth of form which scientific realism has introduced, into art. He, led by his object-libidinous interest like the naïve spectator in pre-Renaissance art, will pick out the familiar things from amidst the bewildering distortions of their form, tone, and colour. In other words, he will again repress from his surface perception all those thing-free distortions, and make the various constancies help him to restore the 'real' properties—form, tone, and colour—of the things. As a reward for this effort the painting will spring into life with an intense plastic illusion. What happens here is a typical secondary process of reification which reverses the thing destruction and copies the original repression process inherent in thing perception on a different level. We remember that the harmonic fusion of the polyphonic voices could be interpreted as a secondary reification which reacted against the primary disintegration of tone colour hearing (acoustic things) by imitating the original repression of the overtones in a different manner. So in the case of the realistic mannerisms too does the public (the artist outside his creative vision is a member of the public) react against the primary thing destruction by repressing once again the revealed thing-free distortions under the cover of the thing constancies.

The secondary repression and the production of plastic effects is not quite identical with the original repression process underlying the thing constancies. In music, the repression of the polyphonic voices deviates in many ways from the original repression process directed against the overtones; music creates its 'artificial' tone colours by repressing not only chord tones—which come nearest to the original overtone chord—but a great number of other inarticulate tone events (glissando, vibrato, jazz rhythm, etc.). Similarly, the plastic painting of Western realism need not really repress the original thing-free distortions, but, as we shall see in our final discussion of the scientific claims of realism, arrives at very arbitrary 'manneristic' compromises between the true distortions contained in the retinal image and the technical limitations of two-dimensional painting though the pleasing plastic effect occurs all the same. For this reason, there is no sharp division between the 'realistic mannerisms' and the 'plastic mannerisms' which we discussed in the second chapter. The plastic mannerisms merely introduce inarticulate form material of some sort into the artistic structure which, on being duly repressed, produces enhanced plastic effects. In the present transition from the past 'scientific' realism to a 'libidinous' realism, Giacometti purposely introduces very extreme distortions of the size and shape of the human form which appear to be prompted by some strong symbolic meaning (extreme elongation or ant-like dwarfing of the figure). Yet, the imaginative spectator will allow his thing constancy to project the 'real' constant appearance into these almost caricatured proportions and will be rewarded by a feeling of an immediate very real 'presence', which may surpass the already stale effects of 'scientific' realism. That the thing constancy can in fact offset extreme elongation is demonstrated by the ready adaptation of our sight in the cinema if we happen to be seated so far sideways and so close to the projection screen that extreme foreshortening occurs (see Plate IX; for a discussion of the new constancy, discounting the foreshortening produced on the two-dimensional surface of a painting itself or on the cinema screen, see the last chapter).

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[1] That an awareness of the thing-free distortions should make our vision flat is a highly significant fact. We are reminded of how the break-through of the repressed inarticulate speech sounds deprived human speech of all its plastic sonority, or 'flattened' it as it were. It would appear that part of the plastic quality of our vision is also destroyed if the repression of inarticulate perceptions is lifted. Thus the repression of thing-free perceptions, apart from its obvious biological usefulness, would have served to give an added feeling of plastic reality to our experience of reality; see a more detailed discussion of this possibility in Chapter XV.

The turning point in the history of Western painting comes when the secondary processes of gestalt articulation and reification began to fail and exposed the gestalt- and thing-free form elements underneath. When this turning point occurs depends entirely upon subjective factors. The Chinese did not appreciate the tone distortions of Chiaroscuro when they first came into contact with Western art. With them the subjective turning point for a breakdown of that assimilation process which assimilates the thing-free distortions into surface perception occurred earlier.

The assimilation may not succeed for two reasons; either the object libido sustaining a particular constancy proves too strong (as might have been the case with the Chinese) or else the constancy as a means of 'structural' repression is in itself strong enough to prevent introspection into the repressed perceptions (as is the case to a certain extent with the constancy of local tone where laboratory equipment is needed to break it down). We saw, however, that in the case of the repressed overtones the musician's unconscious hearing might still be influenced by the hidden overtones though his surface perception cannot reach them. It is conceivable that the 'modern' artist of the beginning twentieth century might have come under the influence of deeply repressed perceptions and so arrived at some of the distortions which we now experience as an arbitrary relinquishment of realism. Yet their unconscious psychological inspiration might come from similar (though deeper) unconscious layers such as those from which the thing-free distortions of the scientific realism had previously risen. We shall see in the next chapter that the seemingly arbitrary distortions of Cézanne's art, which represent the turning point between realistic and modern art, can, by a supreme effort at introspection, still be assimilated as realistic.

We compared the emotional shock which the first contact of perspectivic distortions must have produced upon an unwary public (or the shock which the Chiaroscuro distortions undoubtedly gave the Chinese) with the contemporary public's reaction to the form distortions by Cézanne or Picasso. In all these cases, the feelings of repulsion and uncanniness may be the result of an untoward revelation of irrational modes of vision for which the surface mind is not yet prepared (see Freud's theory of the uncanniness feeling p. 103).

There exist constancies not yet mentioned which we cannot possibly overcome, even with the help of the most elaborate laboratory equipment. Such a constancy is the 'constancy of localization'. It offsets the movements in our retinal image which are not caused by a real movement, but by the movement of our eyes. When our eyes or our whole body move, as for instance in a railway train, the objects outside, in reality stationary, often seem to move and indeed are moving on the retinal image. Something similar, but far more violent and spasmodic, happens with every oscillation of our eye which sends the retinal images of the things tumbling from one corner of the visual field to the other. Yet consciously, we know nothing of this unconscious storm of images in our retina. The objects in the external world keep their 'constant' localization in a stable space; but the smallest 'real' movement, like that of a tiny mouse darting across the floor, is immediately picked from amidst the continual turmoil raging in our retina. We may understand why this important constancy cannot be allowed to lapse so that we may never be able to bring this unconscious storm of images up into surface consciousness. The 'constancy of localization' is the very basis of our surface concept of a stable space.

We have seen, however, in our discussion of the 'time-free' modes of unconscious hearing (Bach's and Schönberg's destruction of surface time, the humorous effect of the 'reversed' film strip or gramophone recording, etc.) that the depth mind can operate without regard to the surface order *in time*. Similarly, our unconscious artistic perception might operate without regard to the surface order *in space* which is so securely guarded by the 'constancy of localization'. Modern cinematography can, to a certain extent, imitate the space-distorting movement of the eye by moving the filming camera itself. The potent emotional effects of this cinematographic technique may be connected with their hidden relation to the unconscious storm of images in our retina and exploit its irrational thing-free meaning. As the camera moves, stationary objects suddenly come to life; they may slide or shoot across the visual field in accordance with a slower or quicker movement of the camera. These mock movements may, if skilfully used, produce a strongly emotional effect. As the camera slowly scans a deserted room and the single pieces of furniture glide into and from our visual field, the room seems animated by an unseen presence. Obviously the mock movement of the furniture is capable of suggesting secret animation. Or the camera may seize on an object far in the background and with a sudden jerk pull it into a close-up so that some terrifying detail is revealed; the shock of this revelation is emphasized by the aggressiveness of the object's mock movement towards us. There would exist an underlying ambiguity whether the movement caused by the moving camera was not 'real' after all. This ambiguity is made possible because the 'constancy of localization' cannot as easily discount the movement of the camera as it automatically discounts the movement of the eye in everyday vision. (In discounting perspective the 'constancy of form' does not operate as reliably in our viewing of the two-dimensional painted canvas as it does in our three-dimensional everyday vision; hence the ambiguity whether the foreshortening of a figure was not a 'real' malformation occurs far more easily in looking at a two-dimensional painting than in our everyday vision of reality.)

I submit that the attack of the moving camera on the 'constancy of localization' draws its emotional effect from the same source of unconscious ambiguity as that which has prompted the realistic discoveries of painting. This is theoretically significant. It shows that the disintegration of the thing constancies, one after another, by the discoveries of perspective, Chiaroscuro, and by Impressionistic open-air colouring, did not stop with the last attacked 'constancy of colour', but proceeded into further depths of the unconscious thing-free vision. But it was no longer possible to bring up the thing-free distortions of space (which are hidden under the 'constancy of localization') into surface vision. The critical point limiting their assimilation had been overstepped. The moving camera is not a realistic imitation of the storm of images hidden in our retina. If we made the camera flick about in a 'scientific' imitation of our eye's oscillation, the dance of the objects on the screen would dazzle us and perhaps force us to close our eyes (see the impracticability of scientifically imitating extreme perspectivic distortions, p. 243). Because we cannot possibly bring up into surface perception the hidden storm of images, the invention of the moving camera did not impress the public as an advance in a scientific realism of cinematography.

We see that the affinity of a certain technique of artistic expression with an unconscious mode of vision does not in itself guarantee that this technique will impress us as 'realistic'; it is also necessary to overcome—at least partially—the 'repression' exercised by the constancies which keep that mode of perception unconscious.

We already referred to Picasso's distortions of the human form which seem entirely arbitrary and not based upon the experience of outer reality. Certain parts of the body appear torn from their context within a coherent body scheme and are fitted in at the 'wrong' place (see Plate VII). They are dislocated. It appears inconceivable that we should ever be able to 'see' a human body in such distorted way. Sometimes the curious concoction of incoherent body features is explained by saying that Picasso combined several consecutive vistas as seen from different angles (profile, full face, etc.) into one single simultaneous view. It is quite possible, as we shall later see, that this fusion of views separated *in time* is also connected with certain other irrational modes of unconscious vision, such as that we have encountered in our analysis of the time order in language and music. For the time being, we are

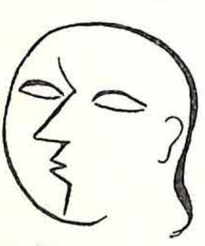

FIG. 15. Combination of profile and full-face views.

concerned only with the disruption of the thing coherence *in space* guarded by the 'constancy of localization'.

We are liable to underestimate the great complexity of every act of perception. I have already mentioned Varendonck's and Schilder's assumption that every fact of perception, however short in terms of surface time, consists of shifts between different genetic levels of perception; the first stage has the ambiguity of the dream-like perceptions on a lower level of the mind. It is extremely difficult to realize the vague ambiguous form experiences which must unconsciously occur while the eye oscillates in its attempt to grasp a new shape. The eye automatically scans an object and in a split second its total shape emerges into consciousness. But is not this shape necessarily a combination of several divergent glances, none of which contained the entire image? Let us draw out this process of oscillation into slow-motion. In looking at the figure of a man, the eye may circulate along his face, shoulder, elbows, knees, feet, etc.; but in whatever temporal sequence we may view the form details, however erratically our eye may jump from one point to another, bringing into focus widely separated vistas, the sectional glances will always be fitted into the same stable and coherent composite, with the sections not actually seen filled in by our memory. The stability of the composite is mainly the work of the 'constancy of localization' which guards the stable (constant) localization of the part views within the entire shape. Our memory or, if need be, our imagination will augment missing sections on which the eye did not linger so that a correct as well as complete composite will duly emerge into conscious thing perception.[1]

We have seen from many instances that if our thing perception represses the accidental and biologically less valuable form aspects, these 'thing-free' perceptions are nevertheless preserved in unconscious depth perception. We infer their unseen existence from their influence on art form. Is it not conceivable that Picasso's disruption of the human body's coherence could be interpreted as unconsciously determined by a thing-free perception directed against the 'constancy of localization'? Prinzhorn[1] pointed to the characteristic Cephalopodes, Humpty-Dumpty-like figures in which the legs are growing directly from the head. They appear in phantastic art as well as in the drawings of schizophrenics. Such malformations could easily be produced in an irrational unconscious vision for which the 'constancy of localization' had no longer validity. Without this constancy, sectional glances at a human figure might grow together in a 'wrong' way. If the eye were to leap from viewing the face directly to the feet, an irrational composite image might fit the feet directly to the face thus producing Prinzhorn's 'walking heads'.

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[1] Tachistoscopic experimentation confirms Varendonck's views. D. O. Hebb (in *The Organization of Behavior* (1949)), says: 'What seems a simple, immediately given image of the whole is actually a serial reconstruction of parts of the figure' (p. 36 n.). Hence the perception of even simple figures involves a 'phase sequence', i.e. a chain of cortical events with motor links. Even if eye movements are prevented by the tachistoscopic exposure of the perceived object for a split second, the single glance will be combined with familiar memory images (p. 46).

This serial reconstruction would involve oscillations between different mental levels. P. Schilder interpreted tachistoscopic experiments in just this manner; he thinks 'that the stages in the ontogenetic development in the visual motor pattern of a child are recapitulated in the individual development of every . . . perception' (quoted by Leo Berman, 'Perception and Object Relation, etc.', *Intern. J. Psycho-anal.*, XXXIV-1, 36). In other words, every perception has to run through infantile, undifferentiated stages of a dream-like structure before it is articulated into the final image which emerges into consciousness.

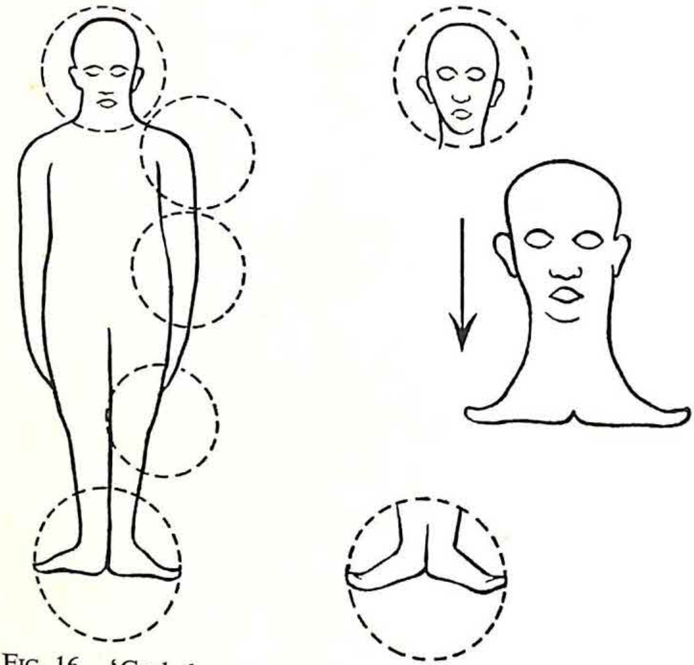

FIG. 16. 'Cephalopodes' as the result of fusing consecutive glances into an irrational composite image.

You might deem such irrational thing-free composites fanciful and even ridiculous. Yet we find this and similar composites in the more whimsical types of pictorial humour, in fairy-tales, and in myths. That such distortions of reality should appeal equally to our sense of humour, to the child's imagination, as well as to the artist's creative vision, is a powerful indication that they hold some meaning for the unconscious mind and may indeed conform to a mode of unconscious vision. It is not unreasonable to surmise that in that split second of ambiguity (which, according to Varendonck, precedes the formation of the definite conscious image) the depth mind attempts various irrational thing-free composites by fitting the several sectional glances into 'wrong' combinations, which are repressed as soon as the final 'correct' composite emerges into consciousness. These thing-free composites would be formed against the constancy of the surface order *in space*, just as in music, language, and in the joke (wit) permutations in the temporal order of words are perceived in a single undifferentiated perception against the surface order *in time*. We said then that modern painting might reflect the space-free mode of unconscious vision as modern music reflects a time-free mode of unconscious hearing. (See the 'space-free' quality of the 'Golden Section' in Chapter XIV.)

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[1] *Bildnerei der Geisteskranken* (Berlin, 1922).

It would appear that the European painter penetrated to these deeply repressed space-free modes of vision in the last phases of his centuries-old withdrawal from external reality. In this sense, Picasso's play with space would represent yet another advance of unconscious modes of vision. It was probably due to the half-automatic method of working ascribed to Picasso and other modern artists that such deeply repressed modes of vision could enter the structure of modern art. It is thus conceivable that Picasso's space distortions are determined by the dynamics of artistic creation (which mobilizes the various techniques of depth perception) just as the 'discoveries' of realism which went before. If we were to succeed in adapting our passive perception to the appropriate gestalt- and thing-free state corresponding or approaching Picasso's own technique of vision his paintings might then become curiously 'real'. Once when I inspected reproductions of a long series of portraits by Picasso representing the same sitter, I somehow felt that his last portraits, which dissected and reassembled the face in the most 'arbitrary' way, were more convincing likenesses than his earlier attempts.

We have no choice but to trust the sincerity of the artist's vision in spite of the recurring reproaches of 'bluffing' levelled against modern artists. The techniques of artistic perception and artistic form have so far given us invaluable guidance in our attempt to understand the working technique of unconscious perception. Now as we reach the deepest strata where we can no longer verify their truthfulness by direct introspection we have no right to repudiate their testimony. It is not the artist who has to learn from the psychologist, but rather the psychologist from the artist, particularly from the irrational forms of 'modern' painting and music which may reveal to us the innermost working of unconscious perception.

XIII

Cézanne's Distortions and Peripheral Vision

IN the long and gradual libidinous withdrawal from reality and the corresponding rise of thing-free distortions from ever-greater depths of the mind, an intermediate stage would have been reached before the final breakdown of the assimilation process when the fate of the newly revealed distortions hung in the balance—when they could have been still assimilated into surface perception after a due secondary reification, or else rejected as 'arbitrary' distortions. We saw how a similar transitional stage was reached by the Chinese after their first acquaintance with European Chiaroscuro. In the history of Western art the breaking-point of the realistic assimilation process arrived in the very deliberate and consistent form distortions which Cézanne, the 'father' of modern art, first introduced into painting. To us they seem to be the first resolute break with a long realistic tradition and, no doubt, they set into motion the quick process of thing destruction which, apart from the more violent distortions of Picasso, led to the openly thing-free abstract art. Cézanne's distortions at first sight appear just as removed from our conscious experience of reality as are Picasso's more extreme distortions. But while Picasso's space- and time-free vision will probably for ever elude our immediate experience of reality, this need not be so with Cézanne's distortions. In my view they can still be derived from and be recognized as a usually unconscious mode of vision which we can make partly conscious if we cared to do so. This is to say, that we could, to a certain extent, train our surface vision to see external reality in the 'distorted' way in which Cézanne presented it to us and might then experience it even as superior in 'realism' to previous art.

Cézanne's painting has probably been misunderstood owing to the imitators of his style. When Cézanne's work ultimately became known to the public, realism was already in full disintegration and his admirers took courage from his example for 'decoratively' distorting 'natural' forms. He thus set a fashion for still-life painting with table-tops toppling over, adorned with three swollen apples and the like. We have no right to ascribe the same irresponsible wish for decorative distortions to Cézanne's originals themselves (see Plate VIII).

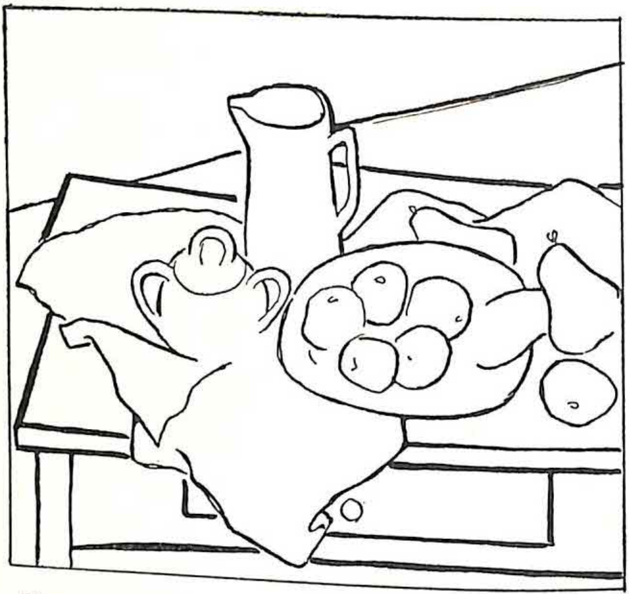

FIG. 17. Diagram after a still-life by Cézanne showing the 'toppling' table-top and 'broken' table edges.

Perhaps because the derivative mannerisms based on Cézanne have now lost their freshness and have become academic art, the art historians are beginning to realize the altogether different quality of the originals. They are also taking more notice of the master's own attitude to traditional realism which greatly differs from the purely decorative aims of his imitators. F. B. Blanshard[1] very sensitively suggests that Cézanne actually *saw* the distortions of form in that immediate way in which previously the Impressionists had actually seen the distortions of colour. Neighbouring forms set up tensions, just as neighbouring surfaces of colour lead to a visual experience of distortion (see for Frankl's physiological analysis of colour distortion later on). Cézanne is alleged to have said that he wanted to go back to those 'confused sensations with which we are born'.

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[1] *Retreat from Likeness in the Theory of Painting* (Columbia University Press, 1949), p. 96.

What are these hidden perceptions? We cannot hope for much help from academic psychology for the understanding of Cézanne's form distortions. The Introspectionists were only concerned with drawing up the 'true' perceptions corresponding to the retinal image. Cézanne's distortions cannot be explained by referring to these 'true' perceptions; they are possibly of the same order as Picasso's dislocations of the human body. In trying to account for these dislocations, we arrived at the concept of an unconscious mode of vision which scrambles up, as it were, the 'true' retinal image; we assumed an intermediate stage (before the emergence of the final memory image) which combined several sectional views to 'wrong' (thing-free) composites. The final memory image would 'unscramble' these distortions into the 'correct' composite and so restore the original spatial distribution found in the retinal image. Cézanne's form distortions would be of the same order and would belong to the intermediate stage of the unconscious perception process which interposes itself between the retinal stimuli and the final form experience of surface perception. It is remarkable that these intermediate stages withstand conscious introspection more strongly than the 'true' perceptions studied by classical Introspectionism which correspond to the retinal image itself.

Cézanne's distortions are related to Picasso's 'wrong' composites inasmuch as they appear connected with the narrow focus of our vision which forces us to build up the image of any bigger shape from *several* sectional glances. Our astounding faculty for adding-up successive sectional glances was illustrated to me in an accidental observation. I was sitting in a waiting-room, the entrance door of which was half-ajar; I could see the people passing along the corridor only through the long and very narrow gap (about three-quarters of an inch wide) left open in the hinges between the door frame and the door. If a person stood quite still behind this gap, I could not make out even the smallest detail of his appearance; it might have been, for that matter, no human figure at all. But if he passed on quickly the rapid successive exposures (which were 'tachistoscopic', as it were) added up readily into an actual if somewhat blurred view of the whole figure which I could sometimes recognize quite easily as somebody I knew. Yet at no time was his whole shape projected on to the retina, however 'real' and immediate my view of the whole figure appeared, which goes to prove that we really *see* the composite memory image.[1]

It seems strange that a biologically so important sense organ like the eye, which after a long evolution has attained physiological near-perfection, should make it necessary for us to scan even a small object by a series of glances and then build up from them a composite image in our memory. I shall suggest that this seemingly physiological imperfection is closely connected with the psychological dynamics of perception and the 'phase sequence' (Hebb) contained in them. As it is, our perception appears unnecessarily complex owing to the extreme restriction of our precise (clear and undistorted) field of central vision. A pin-point of precise vision is surrounded by a broad fringe of vague and grossly distorted vision. We could compare the visual field with a view through a lens which gave a clear and undistorted image only in its focus. As we make the lens wander over the whole expanse of an object we would have not only to add up the several sectional views, but would have also to suppress the ever-changing and distorted views of the whole object streaming through the periphery of the lens. Similarly the unconscious process which builds up the composite memory image from several oscillating glances does not simply add up the sectional views, but has also to repress the distorted peripheral fringe surrounding the single glances. The analysis of Cézanne's form distortions will suggest that the peripheral distortions, in spite of their repression from the final memory image, are able to influence the artist's unconscious perception.

The physiology of vision which—like Gestalt Psychology—only deals with the conscious undistorted perceptions, does not know of the peripheral distortions and, of course, does not offer any physiological explanation. This matters little, however, because—as I shall suggest presently—both the origin of the distortions and their repression are depth-psychological. We can to a certain extent bring up the distortions into consciousness by suppressing (as far as this is at all possible) the eye's oscillation. This, in my opinion, may be the explanation of the very pronounced distortions which occur after prolonged fixation on a single point. Recently an American psychologist, Prof. M. R. Marks of

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[1] Controlled experimentation altering the length and width of the viewing slit, the speed of the movement and the total exposure time (which depends also on the size of the whole object) might give further information about the technique which our memory employs in building up the composite image. Tachistoscopic experimentation (which mainly deals with *single* split-second exposures) might contribute to our insight.

Tulane University, came across inexplicable phenomena of distortion when he tried to test a psychological effect, known as *Köhler Effect*.[1] Observers were asked to keep their eyes fixed on a certain point and experienced after a while (sometimes several minutes, sometimes only a few seconds) drastic alterations in their peripheral field of vision. Perfect circles lying in this peripheral field consecutively became hexagons, flattened or bulged out, etc. Sometimes the central field of vision itself participated in these distortions.

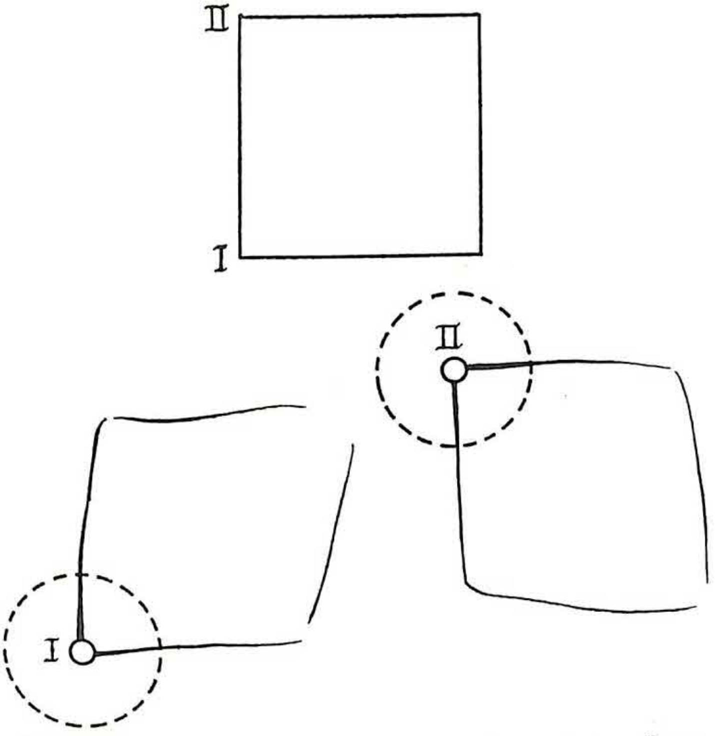

FIG. 18. Peripheral distortions of a square as seen from different fixation points (I and II).

The artist need not tire his vision by prolonged fixation in order to realize them. He, with his gift for diffuse attention, can more easily realize what happens outside his central field of vision. Let us slow down the rapid oscillation of the eye and deliberately choose four successive points of fixation, for instance the four corners of any big quadrangle, such as a window or a door. I may be allowed to describe your experiences after successive focusings; while focusing on the first fixation point, for instance at the bottom left-hand corner, you will experience a certain difficulty in trying to make out any shape at all. A more definite form experience will come when you shift your focus, say to the top left-hand corner (this shows, incidentally, how dependent perception is on movement). If you then succeed in keeping your attention diffused so as to comprise the entire quadrangular shape of the window or door, you will experience a dramatic change during the shifting of the focus. This change will create the impression as though some giant hand had distorted the whole quadrangle into a different direction and you realize now more clearly what the original shape by contrast had looked like. You might then realize that the quadrangle had first appeared to veer upwards, while, after shifting the focus, the quadrangle became squashed downwards. Angles which had appeared obtuse before, now became acute and vice versa. The connecting side lines bent, cracked, and blurred out in the attempt to satisfy the contradicting demands of the angles. None of these vistas reproduced the 'real' shape of the window or the door with its 'correct' perspectivic foreshortenings; instead the quadrangle assumed quite arbitrary rhomboid forms.

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[1] 'Some Phenomena Attendant on Long Fixation', *The American Journal of Psychology* (1949), LXII, 392–8.

It is, of course, not self-evident that the split-second glances which, in normal vision, oscillate along such a quadrangle would contain the same distortions produced by more prolonged successive fixations. But this is as far as we can go by direct introspection. We may presume that if anything they contain perhaps even more fogginess and distorted blur than the described more static impressions. The decision of this problem, however, does not affect the problem in hand, i.e. the distortions of Cézanne. His peculiar distortions can be interpreted from the facts of our little experiment; Cézanne is reported to have fixed his models for very long periods; it is said that he liked his models to sit motionlessly 'like apples'. I submit that most of Cézanne's distortions somehow appear 'correct' if you do not try to see his shapes *statically* by a single glance, but abandon yourself to the movement inherent to his distortions. Erle Loran[1] suggested that Cézanne's distortions produced certain stresses which forced the eyes of the onlooker to move along definite trails within the picture. Now if you try to forget the static traditional realism and give yourself up to the movement something near the miraculous may happen. Your eye is led along definite high-ways to definite fixation points, and from this movement the whole picture will suddenly seem 'right'. I will presently show that certain typical distortions (which have been thoughtlessly stereotyped by Cézanne's decorative imitators) become a genuine visual experience if seen from certain suggestive fixation points. These distortions would be the product of a 'realistic' vision, a vision which took into account the eye's unconsciously guided movements that the previous static realism had neglected. In traditional art it makes no difference in which sequence we view the single form details of a painting, whether they are the principal 'eye-catching' features or mere background forms. It offers a *static* image corresponding to the final composite memory image which emerges into consciousness after the eye's initial oscillation. Cézanne's composition would be more exacting; it imposes definite fixation points and definite directions upon our eye's movements. His distortions are—and this is nothing new in artistic form innovations—ambiguous; different fixation points require different distortions and if there were several fixation points in a painting the distortions can only be a compromise between conflicting influences issuing from the different fixation points. One can understand why Cézanne used to stare at his model for hours on end before he dared to put down the first brush stroke.

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[1] *Cézanne's Composition* (1947).

Yet it is possible to attribute certain typical distortions unambiguously to definite fixation points and so prove our contention at least in such simple cases. If in one of his still-life paintings the tablecloth hangs over the front edge and seems to 'break' the edge into two, the left half, if traced through the overhanging piece of tablecloth, does not join into the right half, but appears to be shifted to a higher or lower level. But a table edge does in fact appear 'broken' in this way if we focus on the interrupting bit of tablecloth as we would naturally do. That 'tracing' of the two halves into a continuous line, on the other hand, does not correspond to an eye movement suggested by the linear composition of the picture; it would have had no visual 'reality' for Cézanne. There are other cases where an eye-catching form feature 'breaks' an otherwise continuous line. In the same way the line of the two shoulders of a human figure is 'broken' by the neck in between. Again it is natural to focus upon the head and the neck carrying it even when we try to follow the line of the shoulders, and this fixation point causes a disruption of the continuous shoulder line. It is a typical 'drawing mistake' in the life class to dislocate the shoulders, particularly if they are seen in a semi-profile. Then the more slanting of the two shoulders is usually drawn as still more slanting and the more nearly horizontal shoulder is drawn even more horizontal and perhaps also too short. The drawing teacher will have to convince his pupil of his 'mistake' by tracing the invisible bone structure connecting the shoulders through the neck. But is this bone structure a visual reality? Does the eye naturally move along it? The more experienced student will check up his drawing by oscillating his eye from one shoulder to the other trying to ignore the interrupting neck in between. This 'jumping' of the eye over the visual obstacle in order to gain a simultaneous view of the shoulders in our memory image does violence to our normal eye movements. As I said, we 'naturally' focus on the head and may occasionally glance once at one shoulder, then at the other, always returning to the central focus between them. From this 'natural' focusing point the shoulders will appear dislocated in precisely the same way as the right and left ends of the table edge appear 'broken' if we focus on the central overhanging piece of tablecloth. Who can speak of a lack of realism if a painting faithfully records these natural distortions of vision?

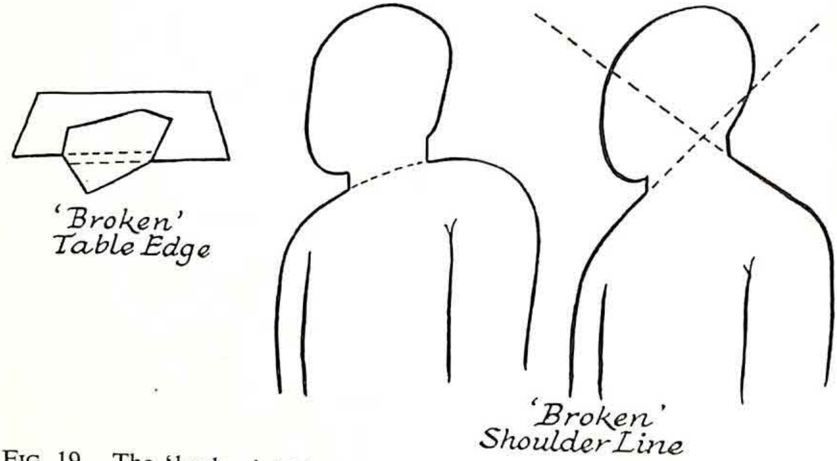

FIG. 19. The 'broken' table edge compared with the drawing mistake of the 'broken' shoulder line.

Cézanne's reversal of perspective has become a decorative mannerism through its misapplication by his imitators. We have come to accept it almost as natural that poster art, window-dressing, or whimsical theatrical décor should reverse the academic perspective by expanding, instead of contracting, the upper stories of a house as though seen from an aeroplane while in fact we are supposed to look up to them from the street level. Cézanne appears to reverse the academic perspective by neglecting to draw the farther edge of a table smaller than its front edge. I owe to Mr. Richard Murry, the painter and curator at the London Central School of Arts and Crafts, the information that Alvaro Guevara used to demonstrate the truthfulness of Cézanne's perspective by making his pupils focus on the rear edge of the table and then asked them whether, from this fixation point, the front edge did not appear to be shorter than the rear edge. The same reversal also occurs if we focus on the front edge and try to catch the expanse of the rear edge; this time the rear edge expands beyond the measure due to it according to academic perspective. It is probably because this reversal tends to recur, whatever fixation point one chooses, that Cézanne applied it so regularly.

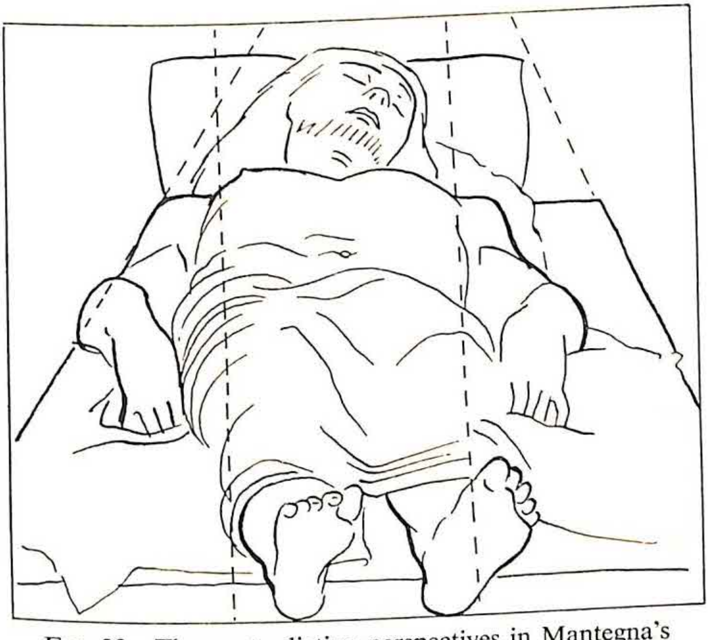

FIG. 20. The contradicting perspectives in Mantegna's *Dead Christ*.

It is interesting that the same reversal of perspective is to be found in the work of the Renaissance pioneer of perspective, Mantegna. His *Dead Christ*, prostrate on a slab of stone, shows extreme foreshortenings. The corpse's feet are telescoped towards the dead face. (Mantegna's picture heads the long 'list of dead' painted in extreme foreshortening to which Rathe refers; see p. 180.) Nevertheless the feet, which are much nearer to the onlooker, are drawn in the same or perhaps even smaller scale than the head in the background. It has been suggested that this equal scale is explained if we imagine that we are looking at this scene as from far away, so that hardly any perspectivic distortion would occur. But look at the stone slab on which the body is prostrated; it shows a strong convergence of its lateral edges suggesting extreme foreshortening as seen from a near distance. Look also at the two mourners in the foreground who suggest the closest proximity. In my opinion, the painting (created at a time when the exact mathematical calculation of perspective was driven to absurd lengths) proves that even Mantegna could deviate from mathematical calculations to an emotional 'unscientific' use of perspective, and so for once anticipated the perspectivic discoveries of Cézanne. Christ's dead head, though bent up against the background and outside the centre of the painting, is the emotional fixation point of this deeply moving picture. A second, structural centre of the composition lies in the intersection of the diagonal lines in the left centre of the painting. From either fixation point would the feet, seen in the peripheral field of vision, shrink into their smaller scale.[1]

Gerard J. R. Frankl arrives at conclusions very similar to mine in his study of Cézanne's colour distortions. This agreement is all the more welcome because Frankl chooses a different point of departure.[2] Frankl too thinks that Cézanne's vision becomes realistic if we consider the effects of 'prolonged fixation'. He draws attention to physiological changes in our colour vision. Impressionists have studied the mutual influence of neighbouring colour surfaces. Red apples in front of a grey wall will induce the complementary colour of green in the wall. But after 'prolonged fixation', the local colours red and grey return with a vengeance. The induced green of the wall will shrink into a sharply defined rim round the apples. When this happens the spatial distance between the apples and the wall seems to vanish and the colour surface appears in a single plane. The local colours grey and red thus reintegrated appear more simple, final; even the blue of the sky assumes solidity, just as Cézanne would have painted it. Frankl tries to derive Cézanne's distortion of perspective from the integration of neighbouring colour surfaces into a single plane. If a tree stands before a house dividing the house into two parts, the left part would integrate with the left side of the tree-trunk into a single plane, the right side would fuse similarly; hence—Frankl argues—both sides of the house appear in a single plane; we see the far side of the house as near as the near side and they cannot possibly be represented as foreshortened. I cannot quite follow this. The idea that Cézanne's vision of reality was necessarily 'flat' and without depth is a legend which is as obdurate as the idea that he applied distortion for merely decorative aims; in either case we project the deliberate flatness and stylizing distortions of Cézanne's imitators into the originals. If we succeed and experience the realism of Cézanne's distortions by submitting to the dynamic discipline imposed by him on our vision, then not only will there be a new mode of perspective within space, but also a plastic feeling which may well surpass the plastic illusions of previous realism. This plastic feeling is the immediate consequence of our being able to re-interpret Cézanne's distortions as true to reality and our 'repressing the distortions' (just as the plastic effect of academic realism depended on the 'repression' of the perspectivic, Chiaroscuro, etc. distortions).

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[1] See Plate X.

[2] 'How Cézanne saw and used Colour', *The Listener*, 25 October 1951, XLVI, 1182.

I have been at pains to demonstrate Cézanne's distortions as potentionally realistic because he worked in the twilight between traditional and modern art, between realism and the manifest thing destruction in abstract art. In every transition there is likely to exist some no-man's-land which proves the continuity between two extreme positions by being attributable to either. We said that much in modern art seemed an arbitrary distortion because we can no longer grasp its connexion with unconscious modes of vision. The previous thing-free distortions of form, tone, and colour in traditional art appeared realistic and derived from external reality because we could draw up and assimilate them into surface vision. Cézanne may indeed have uncovered other unconscious distortions which are not yet beyond the possibility of rational comprehension. If the course of art history had so willed it, Cézanne would have imposed his own realistic mode of vision upon his public. This public, by learning to perceive the hidden distortions which Cézanne saw in his prolonged day-dreaming staring, might have acclaimed his new 'discoveries' in distortion as yet another advance in scientific realism. As it was, Cézanne became known too late and was no longer accepted in the spirit of traditional realism of which he was the last and perhaps greatest exponent.

If we can trust the analysis of artistic perception to be a reliable guide into the unknown territories of unconscious perception, we are entitled to interpret the little-known facts of peripheral vision from our new depth-psychological viewpoint. It appears indeed that the peripheral field surrounding the visual focus possesses many qualities of unconscious perception. To begin with, it withstands introspection to an extraordinary degree; it is almost impossible to shift our attention from the focus towards the periphery. If we succeed in catching these peripheral forms they appear vague and shapeless; moreover they are unstable. Their distortions do not only shift drastically with every movement of the eye, as we observed in our experiments with different fixation points, but are also subject to the influence of our imagination. We have observed throughout our investigation that it sufficed for a perception to become withdrawn from conscious surface perception for the unconscious mind to seize on it for its own irrational expression. Peripheral vision, because it is withdrawn from the 'focus' of conscious attention, would be similarly subject to the play of our (unconscious) imagination; hence also its influence on artistic creation.[1]

Certain physiological differences in the function of the visual cells in centre and periphery of the retina (the central cone cells and the peripheral rod cells) allow us to isolate the peripheral form phantasies without our attention being constantly deflected to the focus of the visual field. The peripheral vision, imperfect as it may seem in other respects, excels the central vision by its superior acuity under twilight conditions. (Some observers see in this surprising feature of human vision an anachronistic ability inherited from an animal ancestor which prowled at dusk; see the 'archaic' character of the peripheral vision in relation to its repression today later on.) When in twilight our central vision begins to fail the hidden dream-like phantoms of peripheral vision invade our consciousness. Have not any of us experienced sudden frights if at dusk we found ourselves in unfamiliar surroundings of dark and unexplored corners? We might then catch a sideways glimpse of some inarticulate shape which, in our effort to identify it, might turn into some phantastic form, all the more terrifying because we cannot make it more distinct; as we automatically train our blind central vision on it in order to discern it more clearly, it dissolves, only to reappear in a different form in another corner. Thus the twilight conditions reveal to us the dream world swimming in the peripheral fringe of our daylight vision. During daylight the peripheral field does not serve any better purpose than to attract our attention to some object whereupon we instantly turn our eye full on to it. There might exist that split second of doubt or ambiguity which Varendonck ascribes to any act of perception in its initial, still inarticulate stage. We 'forget' that initial split second of ambiguity as soon as our final memory image is formed; so also the initial ambiguous appearance of some new object in the peripheral fringe of our vision is not retained by our memory after we identified it in the ordinary way. This may explain why we know so little about this hidden dream world.

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[1] George Devereux, 'A Note on Nyctophobia and Peripheral Vision', *Bulletin, Menninger Clinic*, XIII-3 (1949), speaks of the 'paradoxical nature' of peripheral vision whose neuro-physiological foundation allows the projection of terrifying form phantasies.

The important psychological point is that neither the flexibility of peripheral vision, its readiness to be moulded by our imagination, nor even its vagueness can be accounted for by physiological factors, such as an 'imperfect' function of the peripheral cells in the retina. They may be more sparsely distributed than the visual cells in the tightly packed centre of the retina, and this may account for their diminished acuity. But we do not see vaguely in the periphery in the sense in which a person with weak eyesight would see vaguely. We could compare ordinary vague vision with a blurred photograph. We can examine that photograph at our leisure and make suitable guesses as to what it represents, just as a person with bad vision will have to resort to guesswork. The blurred photograph or a generally blurred vision will offer itself willingly for our scrutiny; in spite of their vagueness they do not evade our conscious attention. If we wish to do so, we can examine with scientific exactness their varying degrees of vagueness, their good or bad definition.

The vagueness of peripheral vision, however, is inseparably connected with its evasiveness which latter can only be due to psychological factors. If we have already focused on a certain shape so that we know its correct form and then allow it to glide into the peripheral field, it will not appear very vague. But if we do not already know from memory what certain peripheral shapes represent then a tantalizing guessing game will commence which will produce the most surprising results. When walking in a street with which I am not too familiar, I sometimes shoot a sudden glance into some obscure corner where I have not previously looked, and then try to keep my focus fixed at that corner as immovably as possible. I try to 'figure out' what precise shape that window or lamp-post swimming in the periphery might have and strain my imagination to make out this shape. This effort is quite different from trying to study a bad photograph; there, however vague, the form is stable and does not offer resistance to being scrutinized. Trying to divert our attention from the focus to the peripheral field needs a special effort at 'diffusing' our vision which is very near to the diffuse vision of the artist, as we shall see presently. Many people will feel their eyes ache. If after some time we have become reasonably sure what a certain peripheral shape might really look like, we must be prepared for surprises. More likely than not, the thing now shifted into the focus bears no resemblance to our peripheral impression. What seemed a broad bow window may turn out to be a blind wall. The top of a lamp-post which seemed to turn to the left, in fact turns to the right. Such fundamental differences in appearance cannot possibly be blamed on the physiological inferiority of the peripheral visual cells.

The evasiveness of the peripheral fringe can best be compared with the indistinct and ambiguous 'halo' (William James) surrounding the 'focus' of our consciousness. There exists a great similarity between the double structure of our visual field and the double structure of the mental imagery emerging into our consciousness; this similarity may be explained from the fact that our mental imagery is ultimately derived from former actual contents of the visual field. It may be the same 'structural' repression which accounts for the evasiveness and ambiguity of the peripheral fringe in the visual field and which differentiates the precise 'focus' of our consciousness from its 'halo'.

In the analysis of the double structure of consciousness we are dealing with facts which are more familiar to us. At the height of rational tension the 'focus' of consciousness is narrow and well-defined; it can deal only with one subject at a time. But there also exist states of consciousness where its 'focus' is diffused into an undifferentiated mode of perception allowing for (what appears to surface perception) 'superimposed' images. It then seems as though our consciousness could deal with several subjects simultaneously. We have considered these 'diffuse' states as break-throughs of dream-like modes of perception usually confined to lower layers of the mind. But ordinarily the ambiguous swimming images are structurally repressed into the undifferentiated 'halo' surrounding the sharp and narrow focus of our attention; they contribute the indistinct associations connected with the lower layers of the mind which are often responsible for the poignant emotions attaching to the conscious focus of our experiences. The 'halo' of consciousness would thus serve as the playground of our unconscious imagination.

We might ascribe a similar function to the peripheral fringe of our visual field; we would then understand better why its form phenomena are so flexible and so evasive, why they are so easily moulded by our imagination, and why, finally, they penetrated into Cézanne's creative vision.

Psychological conditions similar to those which favour diffuse gestalt-free modes of perception (such as the artist's creative state) would also affect the visual field; then they tend to obliterate the sharp boundaries between its focus and periphery. What is called 'Eidetic' vision is the flexible vision of children, primitives, of artists, and significantly also of twilight vision. Then phenomena of distortion very similar to those which Prof. Marks observed as effect of 'prolonged fixation' invade the visual field as a whole. (The grouping together of infantile, primitive, and artistic vision forcibly suggests to the psycho-analyst that 'Eidetic' vision is only another name for the gestalt-free mode of unconscious perception. It has been our experience with other surface psychologies of perception that they have unwittingly dealt with depth-psychological phenomena and so missed important psychological points. In the case of the Eidetic Psychology the unwitting discovery of the unconscious has led to 'mythological' rather than scientific thinking so that it becomes doubtful whether the psycho-analytical movement would care for effecting a synthesis with that wayward school of psychology on the lines on which I have suggested a synthesis of psycho-analysis with the Gestalt Theory and classical Introspectionism. Nevertheless the credit for treating phenomena of distortion as visual reality must go to Eidetic Psychology.)

The device of 'long fixation' employed by Prof. Marks affects both the 'focus' of consciousness as well as the focus of the visual field. 'Long fixation' invariably destroys the gestalt technique of our perception. Once when sitting as a portrait model, I consented to keep my eyes immovably fixed on a certain point. After a while a reorganization of visual field occurred which one could best describe as the break-through of the 'competing' gestalt combinations usually suppressed by the surface gestalt. The object serving as my fixation point (the surface gestalt) became blotted out and the background negative behind it advanced and appeared solid. Köhler could observe the disintegrating effect of 'long fixation' in his experiments with ambiguous patterns, but failed to draw the depth-psychological conclusions.[1] Black and white patterns in primitive art are often ambiguous in this way. They can be seen in two alternative ways, either as a black pattern on white ground or as a white pattern on black ground. What is 'figure' in one configuration becomes 'background negative' in another and vice versa. Now many observers will find that 'long fixation' will force the background negative into consciousness irrespectively whether to begin with they have selected the black or white pattern. Almost with a leap the previously repressed background negative will push itself into the foreground while the previous 'figure' recedes. Such ambiguous patterns are extreme cases of the equally strong 'competing' gestalt combinations

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[1] *Gestalt Psychology*, p. 170.

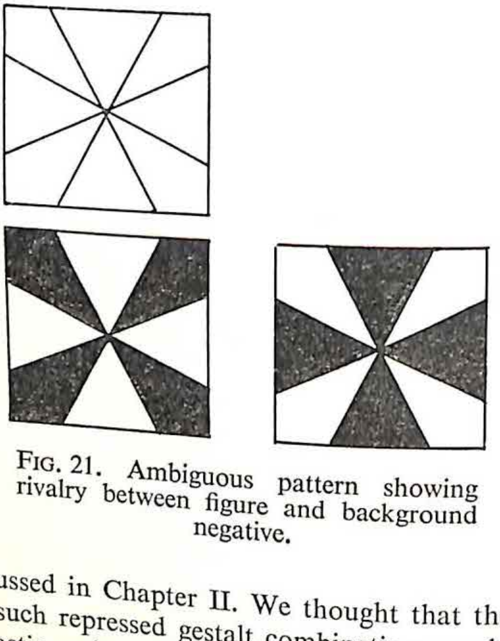

FIG. 21. Ambiguous pattern showing rivalry between figure and background negative.

which we discussed in Chapter II. We thought that the unconscious perception of such repressed gestalt combinations made itself felt by the marked plastic and aesthetic effects with which they endowed the surface gestalt. In an ambiguous pattern the 'competing' gestalt combinations grow to equal strength with the surface gestalt; hence also the great plastic vigour of primitive patterns employing this technique of ambiguity; hence also the final break-through of the 'competing' gestalt combination after 'prolonged fixation'. My unpleasant experiences as a portrait model are to be explained in the same way. 'Prolonged fixation' proves the best means (outside artistic experience proper) to destroy the surface gestalt and bring up the repressed perceptions hidden underneath. This general effect of 'prolonged fixation' supports our earlier assumption that the phenomena of distortion attendant on 'prolonged fixation' which Prof. Marks observed were due to a break-through of distorted otherwise unconscious modes of perception.

That the phenomena of distortion reported by Prof. Marks's observers may correspond to unconscious modes of perception, is also suggested by the emotional reaction on the part of some of his observers which is comparable to a 'resistance' in the psycho-analytical cure. Some of them were reluctant to report them at all; some volunteered the information that 'it looked so crazy' so that they were embarrassed to the point of withholding a report. Others explained their silence by saying that they did not think it 'worth reporting' (*ibid.*, p. 393, note 6). An astounding attitude for observers in the psychological laboratory! Prof. Marks instinctively acted in the right way in an unusual situation where the forces of the unconscious suddenly invaded the otherwise so antiseptic atmosphere of experimental psychology; if his observers did not report their impressions of distortions spontaneously and even denied them when first questioned he did not press them any further. The psycho-analyst will always find it significant if his patients are reluctant to report ideas or memories because they seem too 'crazy' or too 'insignificant' to them; their attitude is typical of a strong 'resistance' to these ideas and indicates that their origin lies in unconscious layers of the mind. We may take the described reluctance of the observers as additional evidence that the peripheral phenomena of distortion are unconsciously omnipresent in everyday perception and are kept from reaching consciousness by a potent resistance (repression). The same resistance to accepting distortion as a visual fact allowed any distortions of academic realism in painting to creep in only as forbidden drawing 'mistakes' (see later) or as tamely decorative distortions. Sir Herbert Read (as we shall see) had to prove it against Matisse's own dicta that at least some of Matisse's distortions were due to peripheral vision and not merely to decorative mannerisms as Matisse himself professed.

If, as I am inclined to believe, the centring of conscious attention in a 'focus' and the centring of precise vision in the focus of the visual field are due to the same or similar structural repression processes, then disturbances in our powers of concentration could be expected to create analogous disturbances in our visual field. Unfortunately next to nothing is known about this interconnexion if we discount the sensational discoveries by Bates which had no repercussion in academic ophthalmology, but found ardent amateur apostles like the great cynic Aldous Huxley. It would not be the first time that cranks have anticipated disciplined academic research. Considering the reluctance of present-day medicine, and of ophthalmology in particular, to acknowledge the relevance of psychological factors, Bates may well have been more perspicacious than his unbelieving colleagues. It is perhaps not unfair to sum up his method as psychological exercises in mental concentration which are credited with an immediate effect on the structure of the visual field and on visual acuity. If one learns to narrow the 'focus' of mental imagery, then the focus of the visual field will also be narrower and more efficient. Bates acknowledges the existence of psychological forces opposed to the normal functioning of the central field of vision, such as a tendency to have a more diffuse vision or to dislocate our precise vision away from the focus towards a point in the periphery. One might wrongly deplore our mental power of concentration being unable to deal with more than a single subject a time, while in fact the very narrowness of our mental focus warrants the acuity of our thinking. Bates's mental exercises strive to counteract similar unconscious tendencies towards diffusion in our visual field and he claims to improve thereby the acuity of the central focus.

However one might doubt the validity of the very far-reaching theoretical deductions made by Bates, he can claim to be the first to give due attention to the intimate connexion between the differentiation of the visual field and the state of our consciousness in general.

This connexion is impressively demonstrated in a serious disturbance of the human personality called 'Depersonalization'. There the sense of reality is affected. The patient is alienated from his own personality, feels to be outside himself, and watches himself in a detached impersonal manner. This peculiar empty, flat state of consciousness is reflected also in certain alterations in the patient's visual field. It too has lost its sharp, plastic ('black') focus, while its fringe seems no longer blurred, but uniformly clear; the boundaries between central and peripheral vision are largely obliterated. In short, Depersonalization shows in an exaggerated manner the conditions which Bates discovered in the normal human personality. It is a common psychological experience that the clamorous symptoms of mental diseases are also found in rudimentary form in the normal human personality.

A better knowledge of psycho-pathological changes in the visual field (duplicated vision, etc.) is necessary in order to explore the close, yet obscure connexion between the function of the eye and the mental life of man. So much appears certain that the structure of the visual field is influenced by purely psychological factors. These factors may be overlaid over a physiological basis. It cannot be overlooked that the differentiation of the visual field also corresponds to the anatomical double structure of the retina which possesses in its periphery the archaic rod cells and in its focus the more highly developed cone cells. If we consider further that the retina can be considered histologically as an outgrowth of brain tissue, we discern here a possible direct connexion between mental functioning and the physical structure of the brain tissue. The same mysterious law of growth (of which we spoke in Chapter I) which allowed archaic and more developed visual cells to coexist side by side may have created also the double structure of the visual field and in the last resort also that of the human mind. These archaic functions, whether psychological or physiological, seem useless; the peripheral vision exists only to be eliminated (repressed). But is the complex structure of the human mind which preserves in its depth archaic urges and archaic modes of perception for no better apparent purpose than to keep them in a dormant (repressed) state, any less mysterious?[1]

We have observed that it was sufficient for certain perceptions to become unconscious, in order to become the repository for the symbolization of unconscious urges which could express themselves in them, undetected from consciousness. Peripheral vision is no exception and the 'resistance' to acknowledge peripheral distortions may partly be due to their symbolic content. If an artist like Cézanne allows them to rise to the surface it would be again due to the pressure of an unconscious symbolism which lies at the bottom of all creative effort. The possible symbolism of peripheral distortion can be better observed in stereotyped 'drawing mistakes' with which we have already compared Cézanne's more disciplined use of distortion. This affinity may be responsible for the initial rejection of Cézanne's new vision as bad draughtsmanship.

We compared Cézanne's typical 'broken' table edges with the drawing mistakes usually committed in drawing the shoulders in a semi-profile view. This dislocation of the shoulders has no visible connexion with a reinforcing unconscious symbolism choosing it for its expression.

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[1] In Chapter XV I will suggest that the preservation and repression of the peripheral vision and of the archaic (gestalt- and thing-free) perceptions may fulfil a very important function by increasing enormously the dynamic tension inherent in human perception which we found responsible for our aesthetic and plastic experiences. Mankind may owe to the complex structure of its perception and of the human mind in general the increased aesthetic and plastic awareness of outer reality and of its inner world of thought.

It is simply the result of focusing away from them and thus bringing them into the orbit of the distorting peripheral vision.

But there is another 'mistake' which is so suggestive that, outside the classroom, it is no longer considered today as a striking anti-realistic deviation from nature. It occurs also in infantile, primitive, and archaic drawings; any naïve untaught painter produces it. It is the relation of the wings of the nostrils to the length of the nose; the nostrils are drawn too narrow if compared with the nose or with the expansion of cheek separating the nostrils from the eyes. I often wondered at the unthinking patience with which a drawing teacher will correct this inevitably recurring mistake; he will broaden and heighten the wings of the nostrils, widen and lower the eyelids, so that the distance between lids and nostrils is duly contracted. Did it never occur to him that the very regularity with which such a mistake recurred suggested that it might be determined by facts of vision and so be more 'realistic' than his statically 'correct' adjustments? In a profile or semi-profile the line of the nose represents the most 'eye-catching' feature, forcing the eye to move along it. The expansion of the cheek between eyes and nostrils, in comparison, to which the drawing teacher pays such loving care, will not be able to compete with the line of the nose and will not guide the eye; it has no visual 'reality'. Hence one really *sees* the long nose and narrow nostrils as the untutored way of drawing in infantile, primitive, and naïve art represents them. When my drawing master set to work on my first portrait drawings and as a matter of routine duly widened nostrils and eyelids, he certainly succeeded in giving the face a more well-knit and static shape. But some of the movement and life had gone out of the drawing. Though I accepted the correction as convincing, I

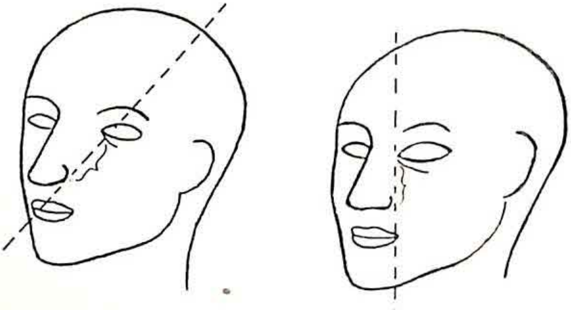

FIG. 22. The drawing mistake of the 'too long' nose and diagonal distortion.

dimly realized even in those days that one could actually *see* a face also in the 'incorrect' way represented by my drawing mistake. I felt that there existed no cast-iron rules for a scientific realism. There were several ways of seeing, and realism could do no better than to reproduce them as faithfully as possible; hence there were also several possible laws of realism which could contradict each other. There is little doubt that an analysis of other stereotyped 'drawing mistakes' could reveal more about the dynamic laws of vision in motion than 'correct' academic draughtsmanship. Here lies another unexplored field of research promising a rich harvest for a psychology of perception.

The elongated nose and shrunk nostrils can also be considered as distortions carrying a sexual-symbolic meaning. They are akin to the distorting stylization of some primitive art which we explained at the time as the consequence of a sexual symbolism distorting the realistic outlines. As primitive 'stylization' we find the elongated nose in one of the most curious animal 'ornaments' in existence. It has been observed that the arts of many periods and places threw up the ornament of the 'dog-nosed' lion, i.e. a lion whose snout is not cat-like, but dog-like. Quite apart from its unrealistic effect, it lacks decorative value and is rather ugly. Yet it recurs in different periods of archaic, European, and Asiatic art, and is still applied—more self-consciously—in modern heraldic art. This longevity and spontaneous reappearance of the same distortion has no obvious explanation, least of all an explanation by 'style influences'. Keeping in mind the dynamic function of ornamentalization, we may conclude that the strength of this 'ornament' is due to a reaction to its unconscious Dionysian symbolism. The phallic meaning of the elongated nose is very apparent in early Persian animal 'ornaments' where the nostrils are given almost testicle-like form; thus the nose acquires the more openly displayed symbolism characteristic of some primitive art.

If we are to look for similarly uninhibited art in our own culture we cannot afford to neglect a degenerate art surviving in our midst, namely the popular art of wall drawings. In their most debased form these wall drawings often display a crude phallic exhibitionism. All the more interesting is a very witty and successful effort of wall drawing which satisfies the same exhibitionism in a sublimated and unconscious manner; I refer to the impertinence of 'Mr. Chad' who graced many walls during the last war. It greatly appealed to the military humour which used to vent its grievances and provocative whims by the same highly 'abstract' drawing. 'Mr. Chad' is little more than a giant nose overhanging the top of a wall with two eyes attached. In its most simplified form, the whole drawing consists of three lines: the horizontal line of the wall interrupted by the overhanging nose; nose and eyes are drawn in a single curve, the nose as rounded V-shape ending sideways into two circles representing the two eyes which so appear as attachments to the nose; lastly a semi-circle outlining the upper part of the face encloses them (the lower part is hidden by the wall). There are as a rule no ears, no nostrils. The face is all 'nose and eyes', looking impudently and provocatively over the wall. May I suggest that its astounding expressiveness is due to the thinly veiled phallic exhibitionism expressed by the nose-eyes curve, the same meaning which in the coarser types of wall drawing appears without disguise? In primitive dancing or infantile play the heroic display of the phallus represents provocation; little wonder, therefore, that the strongly symbolic 'Mr. Chad' should have appealed to the military (heroic) sense of humour.

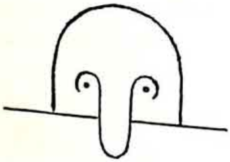

FIG. 23. Mr. Chad.

The liveliness of 'Mr. Chad's' face is due to the almost openly displayed unconscious symbolism and we experience its expression as truer to life and reality than its highly 'abstracted' physiognomy would warrant. Artists have used, and probably always will use, distortion or abstraction if it expresses a symbolism and they will be unaware of its deviation from nature because it is true to their inner reality. In such a case, as we have already seen in Giacometti's extreme 'neo-realistic' distortions, the constancy of thing perception will readily assist in projecting 'thingness' into the abstract forms.

Distortion in art may therefore be determined by two factors: by its conforming with unconscious (thing-free) modes of vision, this is the distortion of Cézanne; or it is due to the distorting pressure of an unconscious symbolism, this is the distortion of much primitive art. (I do not consider here the case of intentional manneristic distortion.) The distortions of modern art come from these two sources. Picasso's and Giacometti's distortions are more akin to the symbolic distortion of primitive art. Matisse's distortions lie in the realistic tradition of Cézanne; they are sometimes dependent on peripheral distortion. Sir Herbert Read[1] refutes the view that Matisse's distortions are due to a decorative play of forms. Read speaks of Matisse as 'holding on a fixed focus, a single line of sight, and painting passionately, intensely, swiftly what the eye in this immediate act perceives. It follows that the results of such a method of painting must be viewed with the same immediate vision. In looking at a picture by Matisse, we must fix our gaze on a central point, hold that focus, and the rest of the picture which, to the analytical vision seems meaninglessly distorted, now falls into position, acquires its meaning, and its due relationship.'

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[1] *Art Now, an Introduction to the Theory of Modern Painting and Sculpture* (Faber and Faber, 1933).

Sir Herbert Read, with his depth-psychological flair (which is comparable to that of Arnold Schönberg's in music), here seizes directly the deeply repressed secret of peripheral distortion. The figure of Matisse would warrant that the long tradition of realism is perpetuated into modern art. As it rebounds from the peak of thing destruction reached in abstract art, many painters may find a new inspiration in Cézanne and in the truthfulness of his vision.

The Transition from Realism to Abstract Art:

(*A*) Thing Destruction by the
1. Distortion of Constant Form . . . Perspective (Renaissance)
2. Distortion of Constant Tone . . . Chiaroscuro (Baroque)
3. Distortion of Constant Colour . . . Open-Air Colours (Impressionism)

} 'Scientific' Realism

..........................Limit of Assimilation..............................

4. Distortion of Constant Peripheral Vision . . . Cézanne
5. Distortion of Constant Localization . . . Picasso

(*B*) Total Disintegration of the Thing Façade . . . Abstract Art

} 'Modern' Art

....

(*C*) Reintegration of the Thing Façade? — 'Libidinous' Realism?

XIV

The Relation between Thing and Gestalt Perception

Once one has learned to pay attention to the initial impression of a thing—which may often be ridiculously misleading—one might be able to hold on to it even after recognizing the true character of that thing. Recently I caught a glimpse in the underground railway of a man carrying a huge rabbit on his shoulder; looking more closely I identified the 'animal' as a travelling-bag with two large handles which I had mistaken for the rabbit's ears. I smiled about my error; but for my interest in 'mistakes' and 'wrong' perceptions I would not have tried to restore the first impression. Thus I could recall that I had really 'seen' the rabbit. It had large eyes and a rather sad expression and sat motionlessly on the man's shoulder. This sounds like a joke and seems to be the work of my imagination operating after the event; I would have become guilty of the 'Psychologist's Fallacy' which projects (retrorelates) a later elaboration of a perceptive experience back to the initial, usually less differentiated stage. This is all very well; I might have not 'seen' the rabbit in that definite shape to which I subsequently restored the sudden apparition. But my secondary elaboration is, in this context (i.e. in the comparison of thing and gestalt perception), a better approximation to the facts than the projection of a 'gap', 'emptiness', etc. which represents the usual memory subsisting after such fleeting glimpses if they are not altogether forgotten once the final unambiguous image has emerged.[1] Varendonck, a past-master in catching day-dreams and inarticulate stages of perception, confessed to have succeeded only once in isolating cleanly the initial stage of dream-like ambiguity in perception, and this in the perception of an electric spark. The spark probably did not last long enough as to allow the simultaneous formation of a definite memory image which would have covered and repressed the first ambiguous impressions. Varendonck could save from oblivion a whole series of 'wrong' interpretations of that spark which must have darted through his mind in that short time which preceded its final recognition. The reader will be more prepared to participate in our eagerness in hunting down the lost split second of dream-like ambiguity if he remembers that one must not apply the surface concept of time to the time-free depth mind. This fleeting moment may be packed with unconscious experiences of the most complex kind. Here our concept of an oscillating consciousness tapping with utmost rapidity different levels of differentiation may become of practical significance.

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[1] The short duration of a 'glimpse' ('tachistoscopic' perception) allows to isolate the secondary elaboration processes that interpret the initial perception and combine it with other memory images. Tachistoscopic experimentation led D. O. Hebb to assume a 'phase sequence' of brain processes following every perception (see p. 189 n.).

But it is not these definite statements I want to make about the structure and content of these elusive initial glances. They may remain beyond the grasp of the surface mind. My partly speculative conclusions will have served their purpose if they help in overcoming the comfortable attitude of the average psychologist as to the secure psychological basis of our abstract form experiences. The contention—so often reiterated in this book, but none the less difficult to accept—that thing perception is bare of a definite form experience and indeed represses pure abstract gestalt will become more acceptable if we realize that the final image entering our surface memory and perception system has hardly any basis in the initial oscillating glances preceding it. Have we ever 'seen' the undistorted form of a perfect square? Did not our little experiment with the peripheral distortions of a quadrangle mentioned in Chapter XII indicate that none of the single glances successively focused on different parts of the quadrangle comprised its entire gestalt into a single undistorted view? The final awareness of the regular and precise quadrangular shape is altogether a mind-made memory image. Why then should it be so difficult to understand that our thing perception is independent from any precise form experience? Whether our perception gives us an awareness of a thing or only of an abstract gestalt, in either case it only forms a memory image which is but little related to the unconscious form experiences immediately underlying it.

It would have been an elegant dichotomy to oppose abstract gestalt perception as 'articulating' form experiences against thing perception which 'repressed' form experiences. Now we come to assume that *any* act of perception is a mere memory image repressing underlying form experiences. There remains little difference between thing and gestalt perception except the difference in the knowledge of the external world they convey and the different quality of the feelings which accompany them. Yet it cannot be disputed that our memory image of a 'good' abstract gestalt is more closely related to the retinal image which after all lies at the very basis of all conscious visual perception. Current psychology may tend to neglect the intermediate stages when unconscious psychological processes are allowed to obliterate the retinal image by distorting and blurring it. This interference of the psychological processes working on the retinal stimuli does not matter in our thing perception which will repress the form experiences anyway according to its own biological exigencies. Our abstract gestalt perception, however, embodies in the memory image a far less distorted picture of our retinal stimulations. There appears to be something primitive and more archaic about gestalt perception, as indeed is its existence itself, which infringes on the fundamental biological function of perception serving to give information about the 'constant' things of the external world. One of the reasons why the current psychologies of perception tend to neglect the dualism of thing and gestalt perception may be the biological anomaly of this dualism.

I submit that the abstract gestalt perception is grafted on our perception as a late-comer which, as so often happens in mental functioning, revives an archaic mode of perception. An indication of the correctness of our view is the ontogenetical evolution of perception. The dualism between thing and gestalt is not inherent in perception. We must not forget that the very young child knows only of thing perception however strange his undifferentiated thing concepts may appear to the adult; the very quaintness of these concepts points to a thing perception which is not rooted on an awareness of abstract gestalt experiences. Only as the child's aesthetic sense develops at the end of infancy, can he appreciate abstract gestalt as distinct from a thing. Then his new faculty for appreciating abstract gestalt may conflict with the biological function of perception directed towards the recognition of the constant things.

Freud, in his analysis of the secondary dream elaboration, comments on the anti-rational effect of the 'abstract' gestalt principle (though, of course, he does not use this expression). We mentioned, when discussing the secondary dream elaboration, that we tend to remember a past dream in a better order and coherence than it originally possessed, and so overlook essential dream elements which are often concealed in disconnected and incoherent details. Here our general tendency towards perceiving abstract order and coherence (good gestalt) obstructs our understanding of the dream's rational meaning.

Freud is quick to notice that the tendency towards abstract order prevails in all our waking perception and there, too, can have the same anti-rational effect. A conjurer may hide the essential trick-performing movement behind a camouflage of rhythmical but meaningless movements. Attracted by the rhythmical flow of the camouflaging movements, our eye will overlook the trick-performing movement because it does not fit into the general 'abstract' pattern of the camouflage movements. This suppression of incoherent form elements in the dream or in the conjurer's trick bears out the well-known 'bump-erasing' function of the gestalt principle.[1] What is new is the anti-rational effect of the 'abstract' gestalt principle to which Freud refers. The 'rational' principle of thing perception succumbs to its rival, the 'abstract' gestalt principle, which directs perception towards the abstract good gestalt instead of guiding it to the meaningful form.

Freud's sagacity is admirable because the abstract gestalt is not often allowed to overwhelm rational thing perception. There are other cases of 'camouflage', but the camouflaged object is usually hidden by other thing forms like trees, or ploughed-up earth, etc.; but rarely, if ever, is an abstract form capable of hiding a real thing. In the wartime camouflage of sea-going ships, an abstract 'dazzle' pattern was used in an attempt to obscure the outline of the ship; but the efficacy of this device has been doubted. As a general rule thing perception proves the stronger in combat with the abstract principle of 'good' gestalt. Of several possible gestalt combinations, not that gestalt combination will attract attention which possesses the best (abstract) gestalt, but that which possesses a rational meaning. The Gestalt Psychologists tacitly admit this state of affairs by their pronounced predilection for experimenting with nonsensical, i.e. meaningless, form material; only in meaningless material can the tendency towards the best abstract gestalt be readily observed. So, we had to illustrate the 'bump-erasing' and 'gap-filling' functions of the abstract gestalt principle by the example of nonsensical syllables. In listening to such syllables, we fit them unconsciously into a better rhythmical and melodious pattern. But what would happen if by other small adaptations the nonsensical syllables could suddenly become meaningful? We would certainly make these adaptations. We know how difficult proof-reading is if we are too interested in the content of what we read; we are all too ready to interpolate not only syllables, but whole words and to suppress superfluous words if they obstruct the sense. The effect of this kind of gap-filling and bump-erasing is not a better abstract gestalt. It will take place even if it leads to a less rhythmical, less melodious, if only meaningful arrangement of the syllables.

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[1] See the beginning of Chapter II.

Bearing in mind the comparatively late development of the abstract aesthetic sense in the child and the antagonism between thing and gestalt perception, one wonders why the psychologies of perception have always taken for granted that in studying the form experience of an abstract pattern they were dealing with the most fundamental phenomenon in perception; it would be unfair to blame the overrating of the meaningless abstract form experience exclusively on the Gestalt Psychologists who after all keep to an inveterate methodological mistake.

Yet as we suggested before, there is something archaic and irrational about the specifically human faculty of abstract gestalt perception. Man's overdevelopment of the aesthetic sense, which is a precondition for his appreciation of abstract gestalt for its own sake, may be a dumb reaction formation to the flooding of perception with undifferentiated archaic (pan-genital, pan-anal, etc.) urges. Freud's discovery that for the unconscious mind (which would preserve the archaic undifferentiated thing perception) the most common things possessed the same or similar sexual significance has been the cause of much derision. Yet this undifferentiated picture of the external world may reflect an archaic surface vision when the pan-genital projection would have still been nearer to consciousness. Psycho-analysis often finds that now unconscious urges were at one time conscious, and only later underwent repression. The now unconscious pan-genital voyeurism may correspond to an archaic state of consciousness when a totally undifferentiated voyeur urge projected a sexual meaning into all things perceived and so prevented their proper differentiation according to other (non-genital) urges, such as hunger (food), aggression (enemy), etc. When we first discussed the hypothesis of an archaic crisis of the voyeur libido we considered only the danger threatening to genital sexuality (see in Chapter III); now we see that the flooding of perception with an undifferentiated libido might have made the ordinary pursuit of life wellnigh impossible. (See, however, the *Addendum*, p. 268.)

The emergence of the new aesthetic principle in surface perception not only guided the voyeur libido back to its genital centre, but would have also made it possible to restore to the things their ordinary libidinous significance and proper differentiation. But at the same time, perception had to assimilate a new type of 'abstract' perception which no longer guided perception to the biologically and libidinously significant thing but to aesthetically 'good' gestalt for its own sake. This new dichotomy would have been the price to be paid by mankind for weathering the pan-genital crisis.

These assumptions are merely speculative, like all attempts at reconstructing prehistoric events from their vestiges in the unconscious of the present-day mind; also, for some reason, Freud's marked inclination towards a biological interpretation of unconscious attitudes does no longer find favour with his pupils, and speculations of the described kind are not readily welcomed. I have nevertheless submitted them to the reader because they help to account in some way for the complex relationship between the two principles of surface perception. The abstract gestalt perception may be older and more primitive than the thing perception which guides our vision towards biologically relevant things; it would have penetrated into surface perception as a 'throwback', replacing partly a more highly developed mode of thing perception.

The new awareness of geometrical forms produced intense aesthetic feelings. The beauty of the simplest geometrical forms, such as a perfect circle, a square, or even a regular straight or curved line, seems to rest on their intrinsic harmony which can often be expressed by equally simple mathematical formulae. Again simplicity of physical-mathematical relations would be associated with beauty as in Helmholtz's theory of harmonic beauty based on the mathematical simplicity of overtone relations; the 'externality illusion' besetting our aesthetic experience dies hard. Throughout its not all too glorious history, the science of Aesthetics has endeavoured to formulate laws of beauty from such mathematical relations, and has failed. With the rise of psychology, the science of Aesthetics gave up its futile search for external laws of beauty and consented to become a branch of psychology—with a few reservations such as the beauty of the simplest geometrical forms. Our dynamic theory of the aesthetic feelings (which are 'externalized' into objective properties of beauty adhering to things) keeps within the new psychological aim of Aesthetics. Nevertheless, it remains difficult for us to disown completely that feeling of immediate evidence which tries to convince us that the beauty of geometrical forms must rest on an objective harmony inherent in these forms and does not depend on the ever-changing whims and moods of our mind. Yet, centuries of aesthetic research were not able to justify this feeling of evidence. The very strength of the 'externality illusion' adhering to geometrical beauty feelings indicates our psychological 'resistance' to accepting their depth-psychological source from within our mind.

To the very young child the simplest geometrical figure, a line or a curve, always 'means' something. The basic geometrical forms are still laden with the pan-genital significance which the child has not yet overcome by the development of an aesthetic sense. Melanie Klein in her researches discovered that drawings by children had a pan-genital significance which is still near to the surface and is readily acknowledged by the children. Similarly, the 'geometrical' ornaments of primeval cultures would not be 'abstract' or meaningless. We have to reconcile ourselves to the fact that the basic linear forms of art are just as deeply imbued with a pan-genital meaning as the basic three-dimensional forms of architecture.[1] Then we will understand better why primeval art so often combines crudely realistic sexual forms with abstract geometrical patterns. This incongruity exists only for us who have developed an aesthetic appreciation of abstract form in order to overcome the intense sexual significance of geometrical forms. The simplest geometrical forms have acquired for us such an immediate aesthetic appeal because unconsciously they still possess such intense pan-genital symbolism (Nietzsche's 'law of *strict proportion*'). The primeval artist —and the child who resembles him—do not yet know the subtle difference between concrete and geometrical form. The geometrical ornaments of primeval art would have the same sexual meaning as its crudely realistic sexual representations which might belong to a somewhat higher evolutionary stage. The Greek culture which invented geometry represented a vehement break-through of the voyeur libido; it broke down the barrier of physical modesty and took an unashamed delight in the human body. Characteristically, archaic Greek art begins with a severe 'geometrical' style. Without transition, the strictly geometrical pottery of archaic Greece developed into the light-hearted realism of later Greek vase painting. Our interpretation of primeval geometrical art as pan-genital symbolism would explain this abrupt transition. Both forms of art represent in different ways the same voyeurism of Greek culture, the archaic geometrical style even more so than the realism of later painting. We must keep this early geometrical style well apart from the intense preoccupation with abstract form which we find later in classical Greece. The subtle sense for proportion and measured harmony which gave us the Greek temple style is a truly aesthetic achievement which is so incredibly refined because it is a reaction against the previous reckless pan-genital break-through. This break-through had to be overcome by the Apollinian graces of beauty and harmony. The intense preoccupation with abstract form led to another reaction. The Greeks felt that their aesthetic play with abstract form must also possess a rational meaning and they discovered geometry, the only science in which they excelled. This discovery, more than their art, gave the Greeks their supreme confidence in the power of the spirit. Ever since, we not only appreciate geometrical form for its simple beauty, but are possessed by the illusion that this beauty must rest on external laws of nature.

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[1] See p. 59.

This 'externality illusion' is part of a secondary reification process which here succours the aesthetic style elaboration in combating the undifferentiated pan-genital projection underlying geometric beauty. We shall show in Chapter XVI that the secondary reification process (creating externality illusions of Truth) may replace or else aid the abstract gestalt process (creating illusions of Beauty). We have already observed in the secondary elaboration of the joke that a projection of a rational meaning into a nonsensical symbolism ('guessing') may concur with the projection of an elegant 'good' gestalt structure into the inarticulate joke; both projections help to fix the mental energy in surface perception and so destroy the joke's laughability.

The 'objective' beauty of the 'Golden Section' is still a favourite with the aestheticians. It has been found that in dividing a straight line or a surface into two unequal sections, many artists or even inartistic persons will tend to divide it in approximation to a complex mathematical fraction of about 1:1·618, i.e. the 'Golden Section'. But the relation of the two unequal sections could be nevertheless expressed in a simple mathematical formula; the smaller section stood in the same proportion to the bigger section as this bigger section to the whole line or surface, that is to say: $A:B=B:(A+B)$ if A and B are the two sections and (A+B) the whole undivided line or surface. This 'simple' mathematical relation, however, is almost impossible to grasp by simply *looking* at the two sections. It is easy to compare A with B which adjoin each other lying within the same line or surface; but it is difficult if not impossible to judge in the same way the relation between B and the whole extension (A+B) of the line or surface, as B is a part of it. A practical way of convincing oneself of the relation is to extend the whole original line or surface (A + B) beyond the section B so that it is shown once again adjoining B, so that our eye can take in both proportions in a single eye movement moving in the direction A to B.

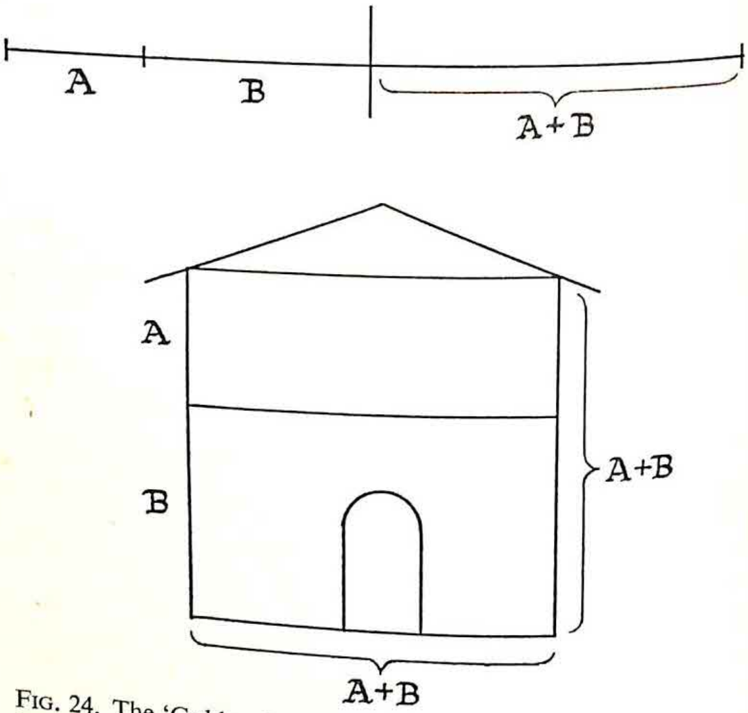

FIG. 24. The 'Golden Section' (*a*) openly displayed with adjoining repetition of the undivided line, (*b*) concealed in the proportions of a building.

Strangely enough, the 'Golden Section' is hardly ever displayed in art in such an easy convincing way. In fact, if it is made too obvious it loses its aesthetic quality as though its beauty was bound up with its 'mystique'. But we have met before with cases where forms (or form relations for that matter) were hidden and nevertheless exerted their unseen influence on our conscious perception; our argument has always been—and indeed the depth psychology of perception stands or falls with this argument—that forms or form relations which in some way influence our conscious experience must be perceived, if not consciously, then unconsciously. In the 'Golden Section' surface perception is presented with a task which it cannot solve because of a peculiar spatial distribution which is mathematically simple, but not so simple as a fact of vision. It would appear that depth perception (which as we thought is not bound by the order *in space* valid for surface perception) is able to grasp the hidden simplicity of form relations and so threatens surface perception with the loss of its mental energy charge. But as no 'baffling' of surface perception takes place, the mental energy is retained there and the mental effort of preserving surface articulation results in intense aesthetic feelings. The very mystique of the 'Golden Section', i.e. the fact that its regularity is not evident, has contributed to the disproportionate interest which it has aroused among aestheticians; but it may be no more than a comparatively simple psychological trick.

XV

A Dynamic Theory of the Plastic Feeling

WE have come across the connexion between plastic feelings and the structural repression of perceptions in various contexts. When first dealing with the 'plastic mannerisms' of painting and music in Chapter II, we could not yet separate the plastic from the aesthetic feelings. The first part of this book, however, isolated the aesthetic feeling incumbent on the articulation of a 'good' abstract gestalt and arrived at a dynamic theory of the aesthetic feeling. It was then claimed that the aesthetic feeling was the conscious signal of a vigorous upward-directed articulation process. Whenever the revelation of inarticulate form elements was not covered up by a process of gestalt articulation, feelings of disgust (ugliness) intervened in order to debase the unconscious symbolism revealed in them; as soon, however, as the inarticulate form elements were covered by the projection of a 'good' gestalt, aesthetic feelings of beauty arose to assist and uphold the newly gained surface gestalt.

On the other hand, we found on various occasions that a strengthening of unconscious (repressed and foreconscious) perception processes produced as their signal in consciousness plastic feelings which are projected on whatever surface gestalt existed. For two reasons it is difficult to keep the plastic feelings apart from the aesthetic feelings; first, a vigorous dynamic tension between conscious and unconscious perception stimulates both the repression of unconscious perception processes (producing plastic feelings) and the opposing secondary articulation processes in conscious surface perception (producing aesthetic feelings); hence the introduction of inarticulate form elements by the various 'plastic mannerisms' produces both plastic *and* aesthetic feelings, provided always that the threatened surface gestalt can maintain itself against the growing pressure of depth perception. The second difficulty is the already mentioned easy confusion between aesthetic and plastic feelings; it is responsible for the usual neglect of thing perception as distinct from abstract gestalt perception. The Gestalt Psychologists never could have proclaimed the (abstract) gestalt principle to be a universal form principle underlying any perception had they not mistaken the strikingly plastic quality of thing perception for a precise abstract gestalt which our thing perception so signally lacks. We somehow take it for granted that an impression of plastic solidity in perception must be associated with a well-defined precise outline circumscribing the plastic form.

In fact, however, the plastic quality of a perception tends to stand in inverse proportion to its 'good' gestalt. Perhaps the most impressive example of a plastic and at the same time gestalt-free perception is our dream vision. In spite of their general ambiguity and lack of definite shape, dream images are often intensely vivid and plastic so that our waking perception may pale into insipidity beside them. Freud interpreted this vividness of a dream vision as the conscious signal of the repressed dream contents which went into its making. The richness of unconscious content is thus externalized into the plastic effect of surface vision. My dynamic theory of unconscious perception, which considers the unconscious structure and not the unconscious symbolic content of perception, explains the plastic effect of vision from the richness in unconscious structure which ultimately comes to the same thing. Unfortunately, however, we have no means by which to penetrate into the unconscious structure of dream vision. (For the same reason we could not prove the dynamic theory of the aesthetic feeling by taking apart the structure of a 'beautiful' dream; see p. 62.[1])

We were better able to correlate the intensity of the conscious plastic feeling with the strength of the unconscious repression process when studying the plastic quality of the natural tone colours (acoustic things). There we can examine the structure of the repressed overtone chord and compare the unconscious effort of repressing it with the plastic quality of the (natural) tone colour produced thereby. Now it is well known that the thin flat tone quality of a flute corresponds to an equally meagre overtone chord, while the rich tone quality of a drum is produced by a rich and complex overtone chord. (We suggested at the time that this difference in unconscious structure explained the combination of the two instruments in primitive music.) We can also see that the richness in plastic tone quality stands in inverse proportion to the good definition ('good' gestalt) of the consciously heard fundamental tone which becomes increasingly blurred as its tone colour gains in plastic volume. This explains why the thin, but well-defined flute tone has become the classical instrument of melody. In comparison one has to imagine the almost uncanny impression of a melody played on an arrangement of drums; the melody is nearly drowned by the rich woolly sound quality of the drums and it would be difficult to discern the definite melodic line from the indistinct rumbling. We found it difficult to imagine how visual things can be so intensely plastic without possessing also a well-defined outline. The plastic quality of thing perception is, as it were, freely suspended without being able to attach itself to a definite gestalt. The plastic quality of a drum beat, too, hangs freely suspended without adhering to a precisely pitched tone. In extreme cases, like that of the flute and drum, we see how good definition and plastic quality can be dissociated; but generally our hearing of musical tones has both an adequate definition and a moderate plastic tone quality. Thus, in listening to the sound of a violin, we wrongly feel that the plastic quality was a property of the well-defined tone. We shall see that in the stereoscopic effect of binocular (two-eyed) vision, too, the plastic effect of real things stands in inverse proportion to their well-defined shape; again we might have thought that the more plastically we are able to see a thing, the more definite and clear would also be its outline. This, however, is not the case.

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[1] Freud, *The Interpretation of Dreams* (1913), p. 306.

By drawing the plastic effect of two-eyed vision into our discussion, I risk being accused of transgressing beyond the scope of this psychological investigation. Is not the stereoscopic effect of vision bound up with the physiological function of our eyes, such as the different axis of vision in the two eyes, etc.? It is indeed necessary to draw a clear dividing line between a modern depth psychology of perception and the so much older physiology of perception. The difference in age existing between the two sciences has put the psychology of perception at a disadvantage. The physiology of perception was first in the field and with the optimism of nineteenth-century science tried to reduce every sensorial experience to physiological functions. No doubt the powerful 'externality illusion' adhering to all our perceptions of the external world helped to sustain the hope that all sensorial experience was fully determined by the objective stimuli coming from the external world. The externalization process is part and parcel of our thing perception and indeed one of its most essential ingredients. This explains the almost insuperable externality illusion adhering to our perception of the acoustic 'things', i.e. the natural tone colours. The theory of tone colour is therefore a good example for the tug-of-war between the physiology and psychology of perception, with the 'externality illusion' creating a strong bias in favour of physiology.[1]

Today it is becoming recognized that tone colour perception is largely a psychological phenomenon. But when the relation between tone colour perception and the inaudible overtones was first discovered and fully investigated by Helmholtz, it was not clear that this discovery posed only a psychological problem of the first order, and a depth-psychological problem at that. There existed sounds, physically identical with any other sounds, yet were not heard consciously. But because there was a lack of depth-psychological insight at the time, physiology claimed to have 'explained' tone colour from the overtones. As it came to be recognized that there existed many (artificial) tone colours which could not thus be explained, physiology had to restrict its claim to having explained tone colour in general; it admitted the existence of tone colour 'illusions' which could no longer be explained physiologically, but demanded an altogether different not yet forthcoming psychological interpretation. As a witty acquaintance of mine put it, psychology served as a 'dustbin' into which physiology deposited indigestible remnants. This dustbin has become rather full and psychology has not so far availed itself of the opportunity offered by a retreating physiology. The present state of the theory of tone colour offers explanations which are partly physiological and, from a certain point onwards, psychological; such a piecemeal theory separates phenomena which are subjectively closely related. The depth-psychological analysis of the artificial tone colour 'illusions' in music showed that they rested on the same unconscious mechanism which underlies the formation of the natural tone colours, namely on the 'repression' of inarticulate tone events. Psychology thus may turn the tables on the older science of physiology; it no longer accepts the boundaries imposed on it by the retreating physiologists. The depth-psychological theory of tone colour, suggested here, not only gives the first psychological explanation of the artificial tone colour illusions, but offers a comprehensive theory of tone colour in general.

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[1] See the irresistible 'externality illusion' adhering to 'piano touch' in the next chapter.

The other tug-of-war between physiology and psychology is the piecemeal theory of plastic perception which is our main concern. It again separates phenomena which in our subjective experience are closely related. The plastic quality of one-eyed (monocular) and two-eyed (binocular) vision is almost identical. As you close one eye the world loses but little of its plastic quality. The physiologists will argue that only the stereoscopic mechanism of binocular vision will enable the accurate judgement of three-dimensional space. This is true enough, but this only forces us to another distinction, namely that which exists between our faculty of judging space in depth (space perception) on the one hand, and an indefinite plastic feeling on the other; only the latter plastic feeling concerns us. As far as it partakes in allegedly physiological phenomena we will have to isolate it from the faculty of judging three-dimensional space and will then see that all that remains is a psychological mechanism of 'repression' which in no way differs from the plastic illusions of art. The present piecemeal theory of plastic perception claims a physiological foundation for the plastic experience in two-eyed vision (based on the stereoscopic mechanism) and relinquishes the almost identical plastic experience in one-eyed vision as a mere illusion to the 'dustbin' of psychology. If in the following I am submitting a comprehensive depth-psychological theory of the plastic feeling it will have at least the merit of a single point of view in the interpretation of related phenomena.

In the same way in which the discovery of overtone 'fusion' seemed to offer a physiological explanation of tone colour, so the discovery of stereoscopic 'fusion' seemed to open the way to a physiological explanation of the plastic quality in binocular (two-eyed) vision. The anatomical fact that our eyes are spaced apart implies that the the images received in them must differ from each other. The stereoscopic camera possesses two lenses spaced apart in a similar way and so produces two images showing the appropriate physiologically 'correct' difference. Now, by placing the two photographs into a stereoscope, the two divergent images 'fuse' and in their place emerges a single image of remarkably plastic quality. We are even able to judge the correct spatial distances. Physiology concludes that the fusion of the binocular images is at least partly responsible for both the plastic feeling and our ability to judge extension in three-dimensional space.

If we compare the definition ('good' gestalt) of our stereoscopic vision and its plastic quality we see at once that the plastic quality stands—as usual—in inverse proportion to its good definition; i.e. the 'fusion' of two divergent images, while increasing the plastic quality, implies a diminution of definition. With the increasing divergence of the binocular images the definition becomes blurred while the plastic effect grows. As we bring an object nearer to our eyes it becomes increasingly plastic; but does it also become more precise and clear in outline?

Let us consider the binocular perception of a very small cube. As it approaches our eyes the two binocular images of this cube will become increasingly divergent from each other; the right eye will see only the right side plane, the left eye only the left side plane. Our conscious perception will, as always, eliminate (or 'repress' as we prefer to say) this divergence; we will then see neither side plane. At a still closer distance the perspectivic foreshortening of the frontal plane will begin to tell; its left edge will be seen bigger in the left eye, its right edge bigger in the right eye. The conscious perception which represses these divergencies will succeed only by blurring altogether the outline of the frontal plane; in the end the perception of the cube will be shorn of all its planes, lateral or frontal.

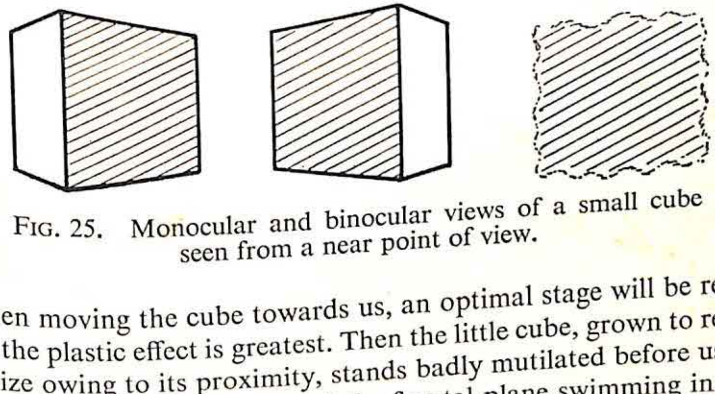

FIG. 25. Monocular and binocular views of a small cube seen from a near point of view.

When moving the cube towards us, an optimal stage will be reached when the plastic effect is greatest. Then the little cube, grown to respectable size owing to its proximity, stands badly mutilated before us, with its two side planes cut away and the frontal plane swimming in a fog. Yet in spite of losing all its substance, the frontal plane vibrates, as it were, with a poignant plastic effect which again seems 'freely suspended' without attaching to a definite form experience. We tacitly acknowledge the otherwise ignored fact that binocular vision has but poor definition when we automatically close one eye in order to examine a small object from a near point of view.

One can imitate the plastic effect of binocular vision by two stereoscopic photographs taken from slightly divergent viewpoints spaced apart by the physiologically 'correct' distance. This could have been taken as a proof for the physiological basis of our plastic experience but for the fact that one has to distinguish the indefinite plastic feeling from the experience of three-dimensional space which latter alone is dependent on the 'correct' divergence of the stereoscopic photographs. Some plastic feeling, no longer definite in terms of three-dimensional space, subsists when the physiologically 'correct' divergencies are abandoned. The stereoscopic fusion still works even when we place photographs, drawings, doodlings, etc. differing in some arbitrary feature into the stereoscope. It is indeed amazing to what extent conscious perception is able to eliminate ('repress') these arbitrary divergencies; what is still more astonishing is that this repression will again produce a plastic feeling which has now become indefinite. We are set on our course which leads from the allegedly physiological cases of the plastic experience to the mere psychological 'illusions' of the artistic experience.

Sir Francis Galton, in his well-known experiments, superimposed the photographs of different people one over the other. He found that this technique of superimposition also made the faces of these people appear more aesthetic, more beautiful.[1] I think it is possible to explain this aesthetic as well as plastic effect produced by superimposition. We saw in the analysis of the 'plastic mannerisms' in painting that the superimposition of several outlines—for instance in the mannerism of Renaissance draughtsmen or in the so-called 'plastic contour' (which is contained between two slightly divergent outlines)—generated plastic and aesthetic feelings. True, the superimposition of two outlines occurred only in a single drawing where it did not matter whether it was binocularly or merely monocularly viewed. But Galton's experiment superimposing two different photographic portraits works equally well whether we superimpose the photographs into a single print, or place two different prints into the stereoscope to be fused by binocular vision. All that appears to matter is the 'fusion' of different outlines, i.e. the repression of the divergence existing between them. The series of transitions which leads from the allegedly physiological case of plastic binocular vision to the plastic illusions of art allows us to isolate the indefinite plastic feeling from the three-dimensional space experience in binocular vision and deal with it within a comprehensive depth-psychological theory of the plastic feeling based on the repression from consciousness of a great variety of perceptions.

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[1] Memoir read before the Anthropological Society, London, 1878; Galton also refers to a communication from Charles Darwin about experiments in fusing the portraits of different people by placing them into a stereoscope.

A weak link in our series of transitions might be represented by the change-over from the plastic effects of binocular vision (imitated in the stereoscope) to the plastic effects in monocular vision. One might contend that the fusion of divergent outlines in a single image viewed monocularly (as in the 'plastic mannerisms') was less plastic than the fusion of two divergent outlines belonging to two separate images viewed binocularly (by means of a stereoscope). This difference in plastic effects indeed exists; yet it is only quantitative, not qualitative. This can perhaps be observed better in the transitions from plastic binaural (two-eared) hearing to plastic monaural (one-eared) hearing inasmuch as they superimpose two rhythms. This time an inarticulate time interval is undergoing 'repression', again the only difference being that binaural hearing represses a physiologically meaningful time interval while monaural hearing represses a meaningless interval.

The physiologically determined time lag between the hearing of the two ears is brought about by the spacing apart of the ears (as stereosopic vision is determined by the spacing apart of the eyes). A sound coming sideways will reach the nearer ear a little earlier than the other (except in the exceptional case that the sounding object is exactly in front or exactly behind us). If we could consciously hear that time lag (which we cannot do owing to its extremely short duration) we would hear a kind of 'stuttering' as though the sound were repeated. As it is, this duplication of the sound is 'repressed' and in its stead the sound consciously heard acquires a plastic quality; moreover the brain will evaluate the in this case physiologically meaningful time interval for locating the sounding object in space. The repressed time interval is bigger if the object is further to the side, smaller as it moves to the front or back; these tiny differences in an already minute time interval will assist in our acoustic orientation in space.

Again we must distinguish between the acoustic experience of space and the indefinite plastic feeling which is quite independent from the physiologically meaningful time interval. The plastic feeling is preserved if we alter arbitrarily the 'stuttering' interval between the duplicated sounds. This is possible by a 'stereophonic' arrangement of earphones each connected with another gramophone, both performing the same record, but not playing it quite simultaneously so that the hearing of the two ears differs by a small time lag which can be adjusted at will. Even if this interval is increased beyond what is physiologically possible the binaural fusion will still take place; as the repressed interval grows the now indefinite plastic impression will grow as well.

We can well compare the 'superimposition' of the two gramophone performances with the 'superimposition' of two outlines in stereoscopic vision: with increasing divergencies the definition of the gramophone melody or of the outline becomes increasingly woolly and blurred, yet gains in its plastic power. The analogy goes further. We could superimpose different outlines not only in a stereoscopic arrangement of two images to be fused binocularly, but also in a single image viewed monocularly; similarly the 'stuttering' double performance of the gramophones can be superimposed into a *single* gramophone performance heard monaurally. This can be done in many ways, for instance by eliminating the 'stereophonic' arrangement of earphones so that the performance of two imperfectly synchronized gramophones is heard monaurally. I am told that a gramophone company experimented with producing records of a new plastic quality by making two needles run behind each other in the same groove. Thus in monaural hearing the repression of some inarticulate time interval (achieved by the duplication of each sound) is sufficient to imitate the plastic quality of binaural hearing though a definite location within space is no longer possible.

The various 'plastic mannerisms' of music introduce a variety of arbitrary inarticulate time intervals which, after being duly repressed from conscious detection, produce a pleasing plastic effect. One of the worst habits a pianist can acquire is to destroy the exact synchronization between his left and right hand; the melody tone (in the right hand) comes always a little later than the accompanying bass in the left hand (in German this mannerism is called 'Nachschlagen'); or worse still, he breaks up every chord into stereotyped arpeggios again separating the bass rhythmically from the melody. The crisp plastic tone quality of jazz which imparts to the piano such a pleasing tone colour also relies, as we have already seen, on the inarticulate rhythmical difference between the melody and the stamping accompaniment; we said at the time that the melody always seems to be just a little 'out of step'. In all these cases of 'imperfect synchronization' a specific plastic quality is achieved by the repression of an inarticulate time interval through 'superimposing' two slightly divergent rhythms. We see that both in vision and hearing a series of transitions leads from the superimposition of two physiologically determined divergencies in a definite space perception to the superimposition of arbitrary divergencies in the indefinite plastic 'illusions' of art.

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XV. A DYNAMIC THEORY OF THE PLASTIC FEELING

The repression processes contained in any act of vision could be considered as the main source of the plastic feelings accompanying our visual experiences. Once we have isolated the faculty of perceiving three-dimensional space from the indefinite plastic feeling, hardly anything remains to account for the general plastic feeling which is common to both, binocular and monocular vision. We cannot accept the contention that the plastic feeling in monocular vision is a mere 'illusion' while it is not so in binocular vision, which is a way of getting round the fact that the impressive binocular mechanism of stereoscopic vision contributes but little to the general plastic feeling of our vision. For a possible explanation of the almost equally plastic effect of monocular vision (as distinct from its diminished faculty of judging space) one is offered an awkward medley of sundry factors, like Chiaroscuro illumination, the mistiness of distant objects, the intersection of outlines belonging to objects situated behind each other and the like, factors which may or may not occur in a given instance. The steady plastic feeling in monocular vision appears wholly independent of the erratic incidence of such factors.

An entirely new approach is needed such as we may expect from a future Psycho-pathology of perception to which we alluded in Chapter XIII. Only such research could give substance to an expectation which the mechanisms of plastic feelings in art and general perception justify, namely that the vast repression processes which appear to go into every single act of perception may be the main cause of its general plastic quality. We have to remember that Bates assumed the existence of two polar tendencies in the visual field, one towards contracting its focus and producing a vivid, plastic image; the other diffusing and flattening it as though there existed an unconscious repugnance against 'repressing' peripheral vision from consciousness; one has then to learn 'how to repress' in order to see more plastically. Experiments with people born blind but later acquiring their sight through an operation, might show that their astounding listlessness in the face of the new wonders of vision could be explained by the fact that they did not yet know 'how to repress' and that their vision had therefore not yet acquired its full plastic reality; hence they relied as before on touch for their 'grasp' on reality.[1] It may be found that the normal contraction of the visual field may even be connected with the superego's repression (this time probably directed against the symbolic *content* of peripheral vision); Freud once suggested to Oberndorf that the cause of Depersonalization might be a split in the superego.[1] This superego disturbance would lessen the repression weighing down peripheral vision and so lessen the general plastic quality of vision dependent upon this repression. Alas, the verification of all these possibilities is still well beyond our grasp.

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[1] See Hebb, D. O., *The Organization of Behavior, etc.* (1949).

We found it abundantly confirmed, however, that an unconscious symbolism tends to make use of inarticulate perceptions as soon as they become repressed, owing to the structural repression active within perception. It was only because this symbolism becomes so greatly reinforced in artistic perceptions that the psycho-analysis of art form allowed us to penetrate into the layers of inarticulate perception. It is legitimate to infer not only that the repressed urges of the depth mind regularly symbolize themselves in the structurally repressed perceptions, but that the superego's repression regularly concurs with the 'structural' repression within perception.

It is far from me to suggest that the feeling of plastic reality which our mind projects into the external world was entirely the work of the superego; but on first evidence it appears likely that mankind owes at least part of its sharpened awareness of a stable, differentiated and external reality to the new agency of the human superego. We spoke of a 'primary' reification process by which the mind itself created the concepts of stable and separate things. Modern Physics have shown that the seeming constancy and individuality of the things has no equivalent in physical facts. We ourselves, by an alleged coarseness of our perceptions, have projected a missing stability and differentiation into the external world. It now appears that it is not so much the coarseness of our senses, but the infinite complexity of the repression processes which built up our conscious 'constant' perceptions and so created the external reality around us whose stability stands in such marked contrast to the eternal flux within our internal world.

It is important for us to know a little more about the connexion between the early formation of the superego and the libidinous thing differentiation of the child. So far I have explained too much from too little. True enough, the repression of overtones and of other inarticulate tone events underlie the primary and secondary reification of the acoustic things. From the quantity of the mental effort needed in these repressions I explained the amount of plastic feelings accruing to the acoustic things. But clearly a qualitative element in the reification process is not yet discernible, which would account for the libidinous differentiation of the visual and acoustic things, for instance the different sensual qualities of the tone colours. The physical data, namely the different composition of the repressed overtone chords specific for different acoustic things, give us no clue as to how their repression should produce this qualitative differentiation of tone colours. It would admit defeat if we referred simply to the basic life instinct, Eros, as the principle of differentiation which once built up the differentiation of thing perception. It is necessary to link up the differentiation of Eros with specific functions of the ego or superego, such as repression. Here it may become of greatest interest that Melanie Klein has linked up the beginning differentiation of external reality with the 'depressive position' in early childhood which is also of decisive importance in the formation of the superego and its repressing function. If Dr Segal's researches into early symbol formation should be able to show how a successful experience of the 'depressive position' allows the child to evolve a richly differentiated and flexible symbolism (compared with the paucity and rigidity of psychotic symbol formation), we might then come to know more about the primary reification process which differentiated not merely the 'symbols' of things, but the original things themselves.

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[1] Oberndorf, C. P., 'The Rôle of Anxiety in Depersonalization', *Int. J. Psycho-anal.*, XXXI, 1.

XVI

The Scientific Truth Feeling and the Externality Illusions of Art

CLOSELY allied to the feeling of plastic Reality accompanying the reification process is the feeling of Truth. The truth feeling guarantees that the internal world of ideas (symbols) conforms with the external world of reality of which it is a replica; the truth feeling, in this function, is a more highly developed variety of the basic feeling of plastic reality which was our concern in the preceding chapter. We speak of a 'solid' truth and indicate thereby that the internal world of ideas is made of the same stuff as the plastic reality without. If an idea is 'true', it means that the scientist has successfully reified his primary creative imagery which in the first place symbolized only his subjective repressed urges.

It may very well be that there existed no sharp distinction between the mental imagery of real *things* and the imagery connected with true *ideas* except the degree of their 'abstraction' (lack of differentiation) and the quality of feelings (*reality* or *truth* feelings) which accompany them. The form experiences underlying our perceptions always tend to evaporate at every determined effort at introspection; we would not wonder, therefore, if all that would remain in the last analysis to distinguish the abstract image of a thing (equipped with feelings of plastic reality) from the equally abstract image of an idea (equipped with truth feelings) was the quality of the two types of feeling cathecting them.

It probably was inevitable that the psycho-analysis of Western art history should in the end bring us up against the need to examine the scientific truth feeling. We could not help paying undue attention to the two specific achievements of Western civilization, harmonic polyphony and realistic painting. Their unconscious dynamics—the destruction and secondary reintegration of thing perception—belong more to the realm of creative thinking than to that of artistic form. Polyphony and realism are mere side-shows of the far more significant scientific quest in Western civilization. We could better understand the psychological trend which set into motion the long libidinous withdrawal of realistic painting were we able to interpret the rise of the scientific spirit in the late Middle Ages. We suspected at the time that our scientific rationality reacted against deeply irrational tendencies which broke surface towards the end of the Middle Ages.

There may also be an irrational element in our frequent acceptance of a 'compelling' truth irrespective of its scientific value. We shall see that our need for interpreting reality in terms of causal 'necessity' is such a psychological compulsion supported by irrational truth feelings. Nowhere is this irrational compulsion clearer than in the pseudo-scientific 'externality illusions' of art. There they are part and parcel of a more primitive, not yet quite scientific reification process. If the reification process succeeds completely in creating new things—as in the creation of artificial tone colours in music—then an insuperable 'externality illusion' prevents us from recognizing their mind-made origin.

The illusion of externality (reality) adhering to musical tone colour experiences often attains extraordinary strength. There is the particular tone colour which the accomplished pianist achieves. It is called his 'touch'; this expression already implies that the pianist hopes to increase the beauty of tone colour by 'touching' the piano keys in an appropriate manner. He would vary the piano's tone colour by the physical action by which he pressed down the keys. A tender, crisp, sharp tone quality would be the result of a tender, brisk, or aggressive movement of arm, hand, and fingers. The same instrument may respond with a poor tone quality to the awkward touch of the beginner, but with sonority to the expert handling of the artist. The great man, by his magical touch, will elicit some attractive tone quality even from the poorest instrument. This is the position as it appeared to pianists and their public for a long time. Impressed by the miracle of touch, piano students spent much thought about the right way in which to twist their fingers so as to achieve the 'technique' which they admired in their teacher and to ensure that the keys were 'touched' in the correct manner.

Unfortunately, no such subtleties can be transmitted to the piano strings on the vibration of which the 'physical' quality of the sound depends. Once the hammer is released by the key, it can hurl itself against the strings with greater or smaller velocity, producing a louder or weaker sound of the strings; only this quantitative change in loudness is possible, but no qualitative change in tone colour.[1] The great master who, trembling with emotion, handles the keys with utmost sensitivity produces physically exactly the same (louder or weaker) tone which the child produces poking his fingers about the keyboard. These facts are now well enough known. What interests us is the historical fact that the belief of the pianists in the physical basis of the tone colour variations could not be shaken by arguments as simple as the laws of mechanics governing the interaction between key, hammer, and strings. The physicists had to go to the trouble of making a sound analysis in order to prove to the pianists what was evident to them anyway. They compared the sound graphs of piano tones once produced by an artist's 'touch', once by a wooden block falling on the keyboard, and found what they expected to find, namely the lack of any objective difference which could account for the subjectively so different experience of piano tone colour.

We should not ridicule the mulishness of the pianists who even today have not altogether emancipated themselves from their 'externality illusion' concerning piano touch. Their stubborn belief is of the same order as the 'externality illusion' which made the illustrious Helmholtz stray into a partly physiological theory of harmonic beauty. We should rather stand in awe of a compulsive belief which has done so much in obstructing a purely psychological approach to the artistic experience.

The externality illusion attaching to the musical experience of artificial tone colour is an integral part of the secondary process of reification which underlies tone colour formation in music. We showed that the fusion of the inarticulate tone events into the 'artificial' tone colours represented an imitation of the overtone fusion producing the 'natural' tone colours, i.e. the acoustic things themselves. By being also equipped with an 'externality illusion', the artificial tone colours become undistinguishable from the natural ('physical') tone colours; they become like the acoustic things themselves. No more complete restitution could be made for the primary acoustic thing destruction underlying music.

If the reification process reintegrates thing perception by merely 'imitating' its unconscious dynamics, as happens in the realistic mannerisms of painting, then pseudo-scientific 'externality illusions' arise which at least demand the application of the realistic mannerisms as imposed by unalterable, 'compelling' laws of nature. Here we reach a border region between art and science the study of which may allow us to understand better the compulsive truth feelings accompanying proper scientific discovery. I hope, therefore, that it will not unduly tire the reader to go over the already well-known facts of European realism, this time in connexion with its stubborn scientific pretensions.

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[1] Louder tones may produce a different composition of the overtone chord and so differ in their 'physical' tone quality from the weaker ones. But this variation in tone colour solely depends on loudness and not on the subtleties of 'touch' with which alone we are here concerned.

The psychological advantages gained from the externality illusion for the success of the secondary reification are easy to see. We discussed in detail the irrational ambiguity of the perspectivic mock distortions. Apart from the difficulty of distinguishing them from real distortions, there are an unlimited number of ways in which the 'real' constant form can be reconstructed from the many possible distortions thus giving ample opportunity to the unconscious symbol play. Today the unsettling ambiguity which must have beset perspective painting when it was first introduced is no longer felt. Perspective is experienced as a more correct, indeed as the only scientific, way of perceiving and representing real nature; it seems to rest on unalterable 'laws' which the naïve painters of old had unpardonably neglected. Art students of today deal with perspective as with a subject of scientific study like the anatomy of the human body, and they apply the fruit of their study conscientiously to their art. Their scientific rather than artistic attitude to art form leaves no room for the twilight feelings of ambiguity which pervade the creative state. No fear that perspectivic form is made again into an emotional experience or into an exciting experiment which it once was in the pioneer days of the Renaissance. Today, the student pursues with knitted brow his ambition of applying a strict law of nature to his art. No longer can the form play of perspective be swayed by the internal world of the repressed wishes, but seems firmly anchored in laws of the external world by a secondary process of reification. The pseudo-scientific activity of the realistic artist binds in the surface mind the mental energy charge which had been previously used for a reckless form play of ambiguity in the depth mind. So the secondary reification process underlying perspectivic realism leads to the same result as the secondary gestalt elaboration underlying style formation in art. Both bring about a shifting of mental energy from the depth mind into the surface mind. In the secondary style formation the feeling of *beauty* has the function of securing the style perception against the continuing pull of the unconscious gestalt-free form play; in the secondary reification process feeling of scientific *truth* gives conviction to the laws of perspective and prevents a renewed break-through of the thing-free form play with perspectivic foreshortenings.

Albrecht Dürer as a scientific mind among painters was second perhaps only to Leonardo da Vinci. We owe to his experiments with perspective a convincing proof of how a serious attempt at 'scientific' realism can lead to absurdity. When I draw a series of circles on a big canvas and sit down in front of it, only a circle just in front of me (which I perceive at a viewing angle of 90 degrees) will appear as a perfect circle on the retina. With the other circles the perspective foreshortening on the painted surface itself will make itself felt and the circles will appear increasingly elliptical towards the edge of the canvas. Something similar happens in a cinema if we sit too close to the screen so that extreme foreshortening occurs. As the hero moves to the far side of the screen his figure is pulled out one way and compressed in the other. But most people, after a few minutes of discomfort, learn to discount these distortions and are able to perceive their hero in his 'constant' shape. In other words, a new 'constancy of form' has been established which enables us to discount the perspective foreshortening produced by the extension of the screen surface itself.

The perspective foreshortening on the surface of paintings would make a perfect circle painted near the edge of the canvas appear elliptical. Albrecht Dürer could not content himself with this state of affairs. He sat down in front of a glass screen and traced the things behind. No more perfect reproduction of a real perception can be imagined. A circular globe behind the screen would be traced as a perfect circle only if it stood immediately in front of Dürer and would be viewed through the screen at a viewing angle of 90 degrees. If the globe was moved sideways its tracing on the screen would have to become increasingly elliptical to offset the foreshortening on the glass screen itself. This super-realistic tracing would be true only if the spectator sat down in exactly the same place from where Dürer had made its tracing. Only viewed from there, the ellipse on the edge representing the globe would foreshorten into a perfect circle. But from any other viewpoint the ellipse would show its elliptical form. But even from Dürer's viewing point the ellipse might refuse to shrink into a circular shape but show its 'real' elliptical form. We saw in our example of the cinema screen that a new constancy has been established which discounts the distortions produced on the two-dimensional surface of the cinema screen and also of a painting. As a rule, we are not aware of the distortions of painted or photographed forms caused by the foreshortening on the canvas or on the photograph itself. So Dürer's super-realistic tracing might well appear to us as an eccentric distortion of real nature.

We have already seen in our discussion of the constancy of local tone that the photographer must beware of reproducing the thing-free brightness values. The black book in the full sunlight might reveal its chalky grey which it really is. It appears that the constancy of local tone is fully effective only in real nature and only there it restores to the objects their real tone values. It is less effective in a reproduction on a two-dimensional surface such as a photograph or a painted canvas. This different behaviour of the constancy principles in two-dimensional reproductions of real things makes any truly 'scientific' realism impossible. If there were a scientific basis of realism it would have been the exact reproduction of the (thing-free) perceptions contained in our retinal image. This is impossible as in the case of the constancy of localization, or leads to absurd results as in the reproduction of the thing-free perceptions of perspective and of brightness.

The present realistic conventions of perspective are a compromise between a partial realization of the thing-free perceptions and the continuing only partly destroyed thing constancies and lastly the new constancies of 'art form' such as the new constancy offsetting the foreshortening on the painted surface itself. Our art has not even fully overcome the 'constancy of form'. In spite of instruction in the laws of perspective we are not aware yet of the extreme foreshortening occurring in our close proximity though in daily life we are used to examining objects from a very close distance. The popular photographic puzzles in illustrated magazines show how familiar objects can become unrecognizable if their form is distorted by the extreme foreshortening of a close view. Our retinal image contains such extreme distortions often enough, but through the constancy of size we do not become aware of them so that we do not recognize the familiar objects in those photographic 'picture puzzles'. The first experiments with perspective in the Renaissance must have appeared equally 'puzzling' to their contemporaries who had not yet become fully aware of the 'true' sensations of perspective. In our daily life we perceive the objects from a comparatively close point of view (implying extreme foreshortening), and also mostly from above, i.e. in a bird's-eye view. We look *down* on our way as we walk; we look *down* as we work on a table. Yet the traditional realistic perspective neglects also this most common perspective. The objects are represented as they appear from far away and are then, as it were, magnified (as in photographing with a narrow-angle lens). The bird's-eye perspective of everyday perception was 'discovered' when the realism in Western painting was already in full disintegration. So when Cézanne began to paint his famous table-tops seen from above, the effect was not felt as a continuation of the classical experiments with perspective, but on the contrary as a definite abandonment of realism in form.

Once a certain realistic mannerism is established as a 'law' and is imitated by the realistic artists of its time, it acts as an effective brake on the unconscious symbol play and has thus the same dynamical function as abstract style. The realism of civilized art secures the surface gestalt of the work of art against a break-through of the unconscious symbol play by demanding that it should follow the outlines of external things as the artist sees them according to the form feeling of his own time. Abstract style has to act as a stop gap if realism is not attainable. The civilized spectator cannot interpret the highly symbolic primitive art form as realistic (though it might appear so to the primitive artist himself) and so he must be content with projecting particularly severe effects of 'stylization' into it. For the same reason the so-called 'abstract' arts of our own civilized culture (which like music and architecture do not cover their symbol play with a façade of realism) develop instead very stringent style effects. The architect of the nineteenth century was subject to the law of style imitation as much as the contemporary painter was subject to the laws of realism. The reification process (underlying realism) and the abstract gestalt elaboration (underlying style formation) can both serve the superego in its battle against the unconscious symbol play of depth perception.[1] Our predominantly scientific culture tends to give preference to the reification process governed by the rational principle of the surface mind and so created the realism characteristic of Western art. The eschewing of style effects in architecture threw the doors wide open for a new advance of the scientific reification process into our art. Functionalism in architecture demands that architectural form should not be subject to the free play of our fancy, but be rigidly determined by outer necessity and utility. There existed a 'Scientific School' among architects who would withdraw their profession altogether from the Fine Arts and considered architectural form as the product of an almost mathematical calculation from external determinants, such as the purpose of the proposed building, its site, the materials to be used, financial limitations, etc. But give the same external determinants to different architects and see how they will differ and how their difference will express their individualities which were to be carefully excluded. The rigour of Functionalism has replaced the rigour of style imitation. Both rigours have the same psychological function, namely of restricting the intense pan-genital symbolism of the basic architectural forms. The previous imitation of style satisfied the 'abstract' gestalt principle. Like the realism of painting, the Functionalism reifies the unconscious form plays of the depth mind (expressing the *internal* world of repressed wishes) by making art form appear dependent on necessities or laws imposed by the *external* world.

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[1] See the reification of 'geometrical' beauty at the end of Chapter XIV.

Nietzsche's 'law of *strict proportion*' applies also to the illusions produced by these reification processes. The stronger the break-through of the unconscious form play, the stronger grows the pseudo-scientific conviction that art form is determined by external necessity. Nietzsche's law explains the inconsistencies in the reception of the successive 'discoveries' of perspective, Chiaroscuro and open-air colours. Perspective was considered as the supreme law of realism, while the use of the open-air colours, and still more the use of the Chiaroscuro, were largely left to artistic sensibility.

From the strictly scientific view of Introspectionism the achievement of the Chiaroscuro in destroying the 'constancy of tone (brightness)' was of equal significance as had been the previous discovery of perspective which destroyed the 'constancy of form'. But the Chiaroscuro did not come with the impact of a new discovery, nor was it ever elevated to the rank of a 'law'. The treatment of the Chiaroscuro is as much part of the present artistic education as the treatment of perspective, but it is taught with a very different emphasis. In the beginning the pupil will give his figure drawings their constant brightness values between black and white and neglect the influence of illumination. At best, he might add a bit of 'shading' which he will keep well inside the outlines of the figures. The teacher's instruction helps the pupil to overcome the 'constancy of tone' and give due attention to the influence of different illumination (light and shade) on brightness. This instruction is never given the authority of a scientific study of nature like the teaching of the laws of perspective. Hence also the gradual disappearance of the Chiaroscuro in the often shadeless modern art passed almost unnoticed, while the new free treatment of perspective in modern art created an emotional reaction comparable to the emotional impact of its first discovery.

If we are allowed to take the emotional impact of an artistic innovation as a measure of its unconscious significance, the great emotional power of perspective was explained from the rich form play of ambiguity which it gave to the pan-genital urge of the depth mind. Certainly, the Chiaroscuro also introduced a new ambiguity welcome to the unconscious form play; at the height of the Chiaroscuro style, the figures became enveloped into solid masses of shade which changed their natural outlines into phantastic and bizarre forms. Yet this new freedom of form is small compared to the wealth of form distortion and form variety introduced by the discovery of perspective. Hence there was also less necessity for restricting the new form play of the Chiaroscuro by stringent laws of nature. The artists never made a serious effort to study the thing-free perceptions of brightness comparable to Dürer's effort in studying perspective and it was left to the modern art of photography to realize the full possibilities of a study of light and shade.

The destruction of the 'constancy of colour' in the Impressionistic colour revolution came with a considerable impact. As we would expect, this emotional impact was matched by strenuous efforts to restrict the new freedom of colour by scientific laws. We can distinguish two stages: the first brought a new freedom of colour and an uninhibited emotional use of the new possibilities; the second tried to restrict this freedom by interpreting it as the discovery of the true hitherto unnoticed 'open-air colours' and linked this discovery with the contemporary scientific researches into spectral colours. Today the Post-Impressionistic colour scale is regarded as the only correct way of representing the influence of light and shade on colour. We are told that we had suddenly discovered that the shade was blue, that transparent colours were warm, etc. From the point of view of Introspectionism, this claim carries some weight. No doubt, the 'constancy of colour' had previously precluded the painters from realizing the very great influence which the vagaries of illumination can exercise on the colour of an object. But the Post-Impressionistic colour scale is much more than the destruction of the 'constancy of colour'; it is the introduction and the subsequent acceptance as realistic of an entirely new set of colours which can in no way be related with known facts of colour vision. Its introduction by the pioneers of Impressionism did not aim at a superior realism. We like to forget that the word 'Impressionism' was coined by the conservative opponents of that colour revolution who wanted to castigate the utter lack of realism in the new artistic movement. It meant that the derided artists had entirely given up a realistic imitation of nature and only wanted to reproduce their highly subjective 'impressions'. The colour scale of the Impressionists was as much divorced from realism as Expressionism is today. Only because the meaning of Impressionism has since been turned into its opposite, i.e. into a pseudo-scientific imitation of 'open-air colours', those artists who continued the revolution in its original spirit had to adopt new names like 'Expressionism', 'Fauvism', etc.

If there were a form law which governed the choice of Impressionistic colours it would be of the same order as the mysterious law which might govern the distortions of the caricature or of Japanese realism. In the Impressionistic colour revolution, hardly any colour reproduces the true 'physical' colour. The Impressionistic colour spot is at best enormously exaggerated like some of the incredible blues of the 'open-air' shades. Each of these exaggerations might be balanced against another exaggeration in a neighbouring colour as the distortions of a caricature are balanced against each other, and by this balancing produce a good likeness of nature (see p. 104).

The emotional violence of the colour revolution was matched by an irresistible compulsion to base the new colour scale on scientific laws. The disintegration of all coherent surfaces and outlines into a scintillating mosaic of colour specks was compared to the splitting up of the white daylight into its component spectral colours. So convincing seemed this very arbitrary comparison that soon the freedom of Impressionism was forced into the orthodoxy of a strictly Pointillistic style which thought a true realism was only possible by splitting all outlines and surfaces into a multitude of dots in contrasting colour which, in the perception of the spectator, fused again into mixture colours, just as the physical spectral colours were known to fuse into white daylight. It seems almost incredible to us how meekly the artists accepted this new scientific gospel so that all painters of that time passed through some period of Pointillism which only the strongest (like van Gogh) were able to throw off completely.

The sincere conviction of the artists that they were really interested in a physical splitting up of colours misled the great physicist W. Ostwald. He offered them simple instruments for the analysis of colours and hoped for an enthusiastic response. An awkward silence followed his indiscretion. His offer exposed that the artists had not really been interested in physical colour analysis, but had only been driven by a dumb necessity to restrict their licence by invoking external laws of nature.

It would have been possible to base the licence of the Chiaroscuro on an analysis of 'true' brightness sensations; but there the artists remained impassive. On the other hand, it was impossible to link the arbitrary colours of Impressionism with an analysis of 'true' colour sensations; nevertheless the frantic scientific interest continued and assumed forms which proved a real danger to art. This inconsistency agrees with our assumption that the artist's urge of justifying artistic innovations by external laws is not determined by a genuine scientific interest in observing nature, but by an internal necessity, i.e. the necessity of restricting the freedom of the thing-free form play which broke loose after the destruction of the rational thing constancies of size, brightness, and colour. The unconscious form play is subjected to laws which are derived by hook or by crook from the external world.

It might be that the true scientist's urge of explaining the external world by compelling laws of nature rests on a similar internal necessity, only that his results can bear the reality test. The difference between the artist's belief in external 'laws of art' and the true scientific belief in 'laws of nature' might be as uncertain as the borderline dividing normal and abnormal mental life. We can often understand normal mental facts better after we have studied their correlated facts in abnormal mental life. Many functions in both normal and abnormal mental phenomena are the same though their results are of very different value. The scientist's success in discovering true laws of nature is not easily explained. There is no essential difference in the creative mechanisms (*Einfallsmechanismen*) of art and science which could be held responsible for the scientist's success and the artist's failure. The scientist, like the artist, contemplates in his creative vision only his own internal world clad—like the dream—into images taken from the external world; but from this 'internalized' vision the scientist returns triumphantly with a new 'law of nature' which claims to interpret the *external* world in a new way. This law has the conviction of truth and we are forced to agree with him.

But are we really forced to agree? As it happens the aims of natural science are undergoing a severe crisis today. It may well be that the urge of the classical scientist to explain nature by compelling laws of causality is an externality illusion like the artist's urge to elevate realistic mannerisms into compelling laws of art.

XVI. SCIENTIFIC TRUTH AND THE ILLUSIONS OF ART

The much vaunted crisis of the law of causality can be put into very sober terms. The whole concept of a 'law of nature' was recognized as superfluous. It was found unnecessary to describe the movements of the planets round the sun by a compelling law of nature which forces the stars to move on their prescribed course. The stellar movements can be described just as well by a mathematical formula from which any future or past constellation can be calculated at will. Such a formula lacks the two elements of which the concept of causality consists—the element of compulsion and that of sequence in time ('the effect is compelled to follow on the cause'). Now, what is found superfluous in a scientific description cannot be true. It is an adornment which does not conform with reality. The 'true' formula must contain neither too much nor too little; either deviation would make it false. Hence the whole concept of a law of causality which compels the natural events to follow each other in a preordained order is false.

Kelsen in his book *Society and Nature*[1] thinks that the illusion of a compelling 'law' in nature rests on an original identity of the laws of human society with the laws of nature. The basic law of society is a law of retribution and of punishment for guilt. Primitive man makes nature a part of primitive society. The objects of nature behave like members of his community and obey the same basic law. If the primitive man is hit by a tree or falls ill or his crops fail, the reason is guilt and retribution for this guilt. As he is interested only in explaining disaster and not his good luck, the principle of retribution for guilt is sufficient to account for all the evil events which alone he wants to explain. If in the modern law of causality the effect is 'compelled' to follow on the cause this compulsion is a residue of the guilt interpretation of the world. The Greeks formulated the law of causality in a way which clearly betrays its moral character: 'All things pay retribution for their injustice one to another according to the ordinance of time' (Anaximander, after Gilbert Murray, *Five Stages of Greek Religion* (1946), p. 33). The senseless cruelty of Greek Tragedy can be interpreted as an endless chain of injustice and retribution. Clytemnestra avenges her daughter Iphigenia by killing Agamemnon and this act of retribution is a crime to be revenged by Orestes' matricide who himself falls a victim to the avenging Erinyes. The cruel fate governing human beings is the supreme law of nature itself according to which 'all things pay retribution for their injustice one to another'. Cause is identical with guilt and the Greeks expressed both with the same word 'Aitia'. In German the word 'Schuld' is often used to describe causation; in English, too, natural events can be held 'responsible' for certain effects. Only today 'the notion of causality is stripped of its most important element with which it was still burdened as the heir of the principle of retribution: Ananke. This is necessity with which Dike, the Goddess of Retribution, punishes evil-doers and at the same time keeps nature on its prescribed course' (Kelsen, *ibid.*, p. 262).

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[1] Kegan Paul, 1946.

Kelsen deals only with the illusionary element of compulsion in the concept of a compelling law of causality. He mentions in passing that the second element of causality—temporal sequence—might also rest on a confusion of natural and social law. The effect follows on the cause as the punishment follows on the crime. I showed that the order in time as we know it existed only in our surface experience, while the depth mind was able to perceive without regard to the order in time. The illusion of temporal sequence is perhaps the most cogent of all externality illusions; time is the mode in which the ego works (Freud) and this mode is externalized into the outer world and perceived there as an objective order in time which all natural events have to follow.

The compelling laws of art show the hybrid character of natural and social (moral) laws very clearly. It has always struck me as unscientific that the aesthetic theorists were not content with proclaiming external laws of beauty based largely on their own subjective tastes which they mistook for laws of nature. Realism, Functionalism, style imitation are not merely the descriptions of certain artistic movements, they are also put forward as peremptory demands with which every artist ought to comply. This confusion of art laws with moral laws and also the moral indignation which so often breaks up an ordered discussion on questions of art are an indication of the strong moral tinge which adheres to the 'compelling' laws of art, and as we saw also attaches to the 'compelling' laws of nature.

Whence comes this moral tinge? Why should the pre-scientific primitive world interpretation be a cruel law of endless guilt and of endless retribution? Could it not be that the scientific reification process derives its element of *external* guilt and compulsion from some *internal* guilt and compulsion?—that we project a deeply repressed guilt feeling (based on the internal compulsion of the superego) into the external world? Again the usage of language is revealing. It connects 'science' with 'conscience', 'Wissen' with 'Gewissen'. The Bible tells us that the first knowledge was bought at the price of eternal guilt, i.e. the guilt of the woman and the devil serpent which was cleverer than the other animals in Paradise.

We know from clinical material how easily unconscious guilt feelings undergo externalization. The conscience is projected into the external world and heard there as a reproaching or warning voice. How easily are we inclined to blame our own guilt on somebody else; again we free ourselves from the oppression of the superego by 'externalizing' our guilt.

The compelling illusions of external guilt and compulsion which are found in art and science would help us to escape from guilt and compulsion within. We understand now why the artist who dares to break the 'laws' of art will evoke moral indignation and even risk prosecution.

Most revealing is the emotional reaction following the recent disintegration of the law of causality. When the concept of causality was recognized as an illusion it could have been quietly dropped like other half-mythical beliefs which are apt to crop up in science now and again. But the fall of the law of causality was dramatized into a crucial crisis of science itself. Man suddenly felt his grip on reality to give way and an abyss of insecurity to open under his feet. This anxiety feeling becomes understandable if we interpret the illusion of an external causal compulsion as an escape from a moral compulsion within ourselves. By destroying the myth of causality we fall a victim to an archaic guilt feeling from which we had tried to escape into the belief in external compulsion and which begins to oppress us again with inarticulate feelings of insecurity and forebodings of disaster.

Worse feelings of guilt and anxiety than those which now mark the breaking-up of the causality myth, once heralded its formation a few centuries ago. I refer to the horrors of the witch belief which darkened the most brilliant minds of its time to an extent which is quite incomprehensible to us. To fit the witch belief into the history of the modern scientific belief, one must realize that in the early Middle Ages all interest in explaining the external world had ceased. After the collapse of classical rationality the few intellectuals were content to guard the literary heritage and to understand the world by logical deductions from classical writings. When the mind of medieval man turned outwards again the beginning interest in the external world assumed the form of the primitive's interest in world explanation. Kelsen shows that the primitive's intellectual curiosity is only aroused by disaster which he explains by guilt. So the medieval man's first interest in explaining the external world was a quest for guilt. When a disaster occurred its cause had to be guilt; and it was—as in Paradise—the guilt of the 'Woman and the Devil'.

Our horror of a belief of barbarian cruelty should not prevent us from noticing that apart from being based on an unshakeable belief in causation through guilt, the procedure of witch-hunting began to resemble more and more impeccable scientific research methods of today. Some records of witch trials are a testimony to the thoroughness and impartiality of the judges. The witches were made to repeat certain magical ceremonies or formulae which had been established as the cause of disaster and the results of these ceremonies were closely watched. The modern scientist will shudder as he recognizes in these elaborate tests which are half trial, half experiment, the authentic forerunners of his own methods by which he tries to reproduce natural causation in his laboratory. The intellectual ambitions and capacities of many centuries went into the study of witch guilt. It would be quite wrong to assume that the witch belief had begun as a popular superstition and then gradually infected the educated minds. Quite the contrary! It agrees with our assumption according to which the quest for guilt was the first scientific interest that the belief in witch guilt took hold first of the most educated. The common people remained inert for a long time. The educated and more enlightened personalities used all the power and means of their position to shock the dumb masses of the population into the realization of the terrible dangers to which they were unknowingly exposed. They were helped in what today we would call a campaign of popular education, by the newly invented art of book printing. When in every family library the latest primer on witch-hunting was found next to the family Bible the untiring popular educators knew they had won at last. Modern science overcame the old belief in causation through witch guilt by substituting another myth, the myth of a compelling causality, certainly less cruel and harmful, but no less irresistible.

Freud found that the rise of new religious beliefs in the Mediterranean basin two thousand years ago was preceded by an inarticulate feeling of anxiety and guilt connected with the unconscious memory of the primeval patricides. We see now that the rise of modern scientific beliefs a millennium later was preceded by a wave of much stronger feelings of guilt and anxiety among the European peoples. This reveals an unexpected relation between the dynamics of religious and scientific beliefs. Both would articulate some deeply repressed guilt feelings probably connected with certain primeval memories. And these beliefs would be all the stronger the more the memories of primeval guilt oppress us unconsciously. Modern 'believers' in science would claim that scientific curiosity was not hemmed in by restrictions like the religious outlook on the world. I would be more modest. If intellectual curiosity was a compulsion imposed by the necessity of escaping from unconscious guilt, it would become dangerous as soon as it touched at its own unconscious source—a question of guilt. This danger is not only demonstrated by the compulsive beliefs in the guilt of the witches. Even today the intellectually educated man has little gift for impartiality in questions of guilt. Why should it be reckoned a progress in dispensing criminal justice that the decision about capital guilt had to be taken away from the 'learned' judge and entrusted to the common sense of a lay jury consisting of possibly quite uneducated men? It may be that the half-educated (and to his class belong almost all 'intellectuals') might combine with his eager intellectual curiosity a good deal of still unsublimated guilt feelings which he has to externalize into guilt beliefs and which make him quite unable to bear uncertainty in questions of guilt. It seems no coincidence that the only intellectual occupation of many half-educated people is the reading of crime stories. It appears that nothing is able to stimulate intellectual curiosity more than a plot of 'guilt unexplained'. This burning interest in the 'who's done it' story might well be connected with our innate inability to leave a question of guilt unsolved for any length of time and make us accept without dismay the most improbable solutions of the crime mystery. (An additional reason for the tension and the illusion of logical cogency experienced in reading crimes stories was given in Chapter II.[1])

This preliminary analysis of the scientific guilt feeling allows us to round off our discussion of artistic and ordinary perception. We are now able to identify the mysterious break-throughs of irrational thing-free modes of perception at the close of the Middle Ages which gave our art and music such a marked scientific tinge; they may be identical with the irrational tendencies underlying the rise of Western science itself. That the scientific truth feeling should be related with the guilt feelings issuing from the superego permits us to discern an intimate relation between the two main functions of the superego on the one hand and the two varieties of the reality feeling on the other; we saw that the fundamental feeling of plastic reality experienced in our perception of things was sharpened by the repressing function of the superego which was added to the 'structural' repression already inherent in the perception process; we now see that the other principal function of the superego, namely that of arousing guilt feelings, becomes externalized into feelings of compelling truth which represent a more highly developed variety of the reality feelings, attaching to the world of true ideas instead of the world of real things.[1] We thus arrive at a conclusion which is familiar to psycho-analytical thought, namely that cultural sublimations which serve us in our contact with outer reality nevertheless arise in the first place in response to the exigencies of our inner reality. The twin feelings of Reality and Truth, as well as the aesthetic feeling of Beauty discussed in the book's first part, would be determined not so much by objective stimuli coming from the external world, but by dynamic processes occurring within our unconscious mind and thus would be controlled by its subjective needs. Future depth-psychological research might perhaps succeed to link up again the irrational happenings within our unconscious mind with their physiological 'objective' basis and might thus re-establish a somewhat more complex relationship between our perceptive experiences and outer reality than is generally assumed at present. But the simple, direct relationship between our perceptions and the sensorial stimuli coming from without which today's naïve surface psychologies of perception tend to postulate can no longer be sustained. For the time being, the depth psychology of perception must lend support to the scepticism of idealistic philosophies which doubt the objectivity of Beauty, Truth, and Reality.

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[1] In a paper dealing with the origin of the scientific and heroic urge I analysed in greater detail the motif 'The Woman and the Devil' and the pre-scientific guilt feeling connected with it; a few points of this paper are taken up in the *Postscript*.

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[1] If the feeling of plastic reality is more fundamental than the feeling of compelling truth, so is also its basis in the functions of the superego. We have to remember that we conceived the superego's repressing function as being derived from a fundamental biological principle of growth governing all organic life; its function of arousing guilt feelings would belong to a more highly developed near-human stage of evolution.

Postscript

In the analysis of gestalt perception we found that 'modern' art tended to be gestalt-free, in the analysis of thing perception we found that it also tended to be thing-free. The secondary processes of traditional art had satisfied both principles of surface perception, i.e. the gestalt principle guiding perception towards perceiving the 'best' possible gestalt as well as the tendency towards perceiving the 'constant' things. We thought that for some reason our modern civilization disregarded the rational surface functions of the mind and allowed the irrational (gestalt- and thing-free) modes of the depth mind to intrude openly into the structure of 'modern' art. We found this disregard for rational functions also in other branches of modern culture, for instance in Bergson's theory of intuition. What is the cause for this significant shift in the stimulation of the surface and depth functions? Our analysis of realism in Western painting showed that a persistent libidinous withdrawal from external reality had been going on for centuries. Only on the surface did realism in art seem to be animated by an increased interest in the real things while in psychological fact the realistic study of perspectivic distortions, Chiaroscuro, etc. required a detached 'scientific' interest, not in the things themselves and their constant properties, but in one's own changeable subjective perceptions of them. At last we found that the general 'scientific' bent of Western civilization too was not inspired by an increased libidinous interest in outer reality, but rested on a compulsive projection mechanism imposed by the pressure of certain (oral) guilt feelings. In order to escape from unconscious guilt feelings scientific man projected the *internal* compulsion of his superego into the *external* compulsion of causality. We thought that the same guilt feelings which begot the scientific quest in Western civilization also gave our art its specific scientific tinge and increasing libidinous detachment. The libidinous loss which is so clearly marked in our 'abstract' (thing-free) art is also noticeable in science. I will comment on the scientific fashion of 'debunking' accepted values and try to connect this now passing fashion with the general loss of object libido in our cultural life.

The seeming paradox of a highly 'rational' modern science existing side by side with a highly 'irrational' modern art is thus resolved. Science itself can be the product of an irrational anti-libidinous attitude. We may call a civilization 'rational' or 'irrational' in the same way in which psycho-analysis would describe an individual adult in these terms. A civilization would be rational if its participants enjoyed a full libidinous life unburdened by irrational anxieties and guilt feelings. What we like to call 'primitive' cultures need not be irrational in this sense. Margaret Mead went out to the South Sea Islands and so equipped herself for a new evaluation of Western civilization; on her return she rediscovered in our midst irrational inhibitions, guilt feelings, and anxieties not dissimilar to those which may restrict the libidinous freedom of certain primitives. Yet there were other primitives, such as certain Samoese natives, who were able to conduct their lives in a dignified way, capable of a guilt-free enjoyment of their sexuality and quite unable to appreciate the message of missionaries which promised them salvation from a guilt they did not feel. Margaret Mead found that these people, in spite or perhaps because of their sober rationality and poise, lacked the stimulus to creativeness. One wonders whether 'civilized' Western man through his sufferings from irrational guilt and anxiety feelings was also driven towards his richly creative life.

We might refuse to accept the contention that our anxieties or guilt feelings were 'irrational' and 'inarticulate'. Were they not fully justified by the external danger threatening from a mighty foe? There was no further need for explaining our so well-founded fears from the pressure of irrational urges coming from within. But generally we prefer to explain cultural facts from external factors ('style influences' in the history of art, 'diffusion' of cultural traits in the anthropological analysis of cultural growth) rather than from internal psychological factors. The threat of an external enemy does not always suffice to explain cultural uneasiness and loss of zest. Happier civilizations were able to enjoy a full libidinous life under equally grave or even graver circumstances. The Greek spirit evolved under the constant threat of invasion by the powerful Persian empire. Elizabethan England came nearest to the classical spirit while the Armada assembled in the Spanish ports. (See the response of a culture to external or internal 'challenges' at the end of the *Postscript.*)

Freud dismissed reports about happy primitive peoples as travellers' tales.[1] He thus arrived at his pessimistic concept of the cultural process which he envisaged to be inimical to a full libidinous life. He may have been guided by a generalization of today's unhappy state of Western civilization into the belief the cultural progress would generally tend to restrict more and more a free libidinous activity and simultaneously increase the internal aggression of the superego through guilt feelings. The cultural process would parasitically use up increasing amounts of libido which would then no longer be available for sexual propagation, hence further cultural progress might ultimately threaten mankind with extinction. The current psycho-analytical theory accordingly considers most cultural inventions as direct sublimation and consumption of genital libido and takes them as more or less clear symbolizations of genital intercourse. It adheres in a way to the old conception of a primeval paradise where mankind still enjoyed a full sexual life until the cultural process intervened to inhibit the free discharge of libido and forced it into the tamer satisfactions offered by the various cultural activities.

My own analysis of certain cultural activities reads differently and indeed points in an opposite direction. As far as I have ventured to associate certain unconscious urges with certain cultural inventions I came to the conclusion that mankind by inventing them neutralized archaic urges which would have otherwise endangered its normal libidinous life. Thus the aesthetic process would neutralize an archaic undifferentiated voyeurism which might have threatened to deflect the sexual aim from the genital zone; or speech would absorb an undifferentiated acoustic 'voyeurism'. In my already mentioned paper on the scientific and heroic urge I suggested the existence of a specific oral Thanatos urge (which I called 'Prometheus' urge) which is also responsible for the 'gnawing' pangs of human guilt feelings; it causes the *hero* to seek self-destruction almost openly while the *scientist* projects his internal compulsion by the (self-destructive) guilt feelings into the external compulsion of causality.[2]

Let us compare the two possible readings of the cultural process by means of the example of the aesthetic pleasure. In Chapter III, I followed Freud in assuming that the aesthetic pleasure transmuted a sexual (visual or acoustic) voyeurism. At the end of Chapter VIII, I contrasted the admirer of calm classical beauty in women with the Dionysian lover who, being less inhibited, can enjoy a fuller measure of voyeur excitement. But if we accept the derivation of the aesthetic pleasure from an archaic undifferentiated (pan-genital) voyeur libido, the aesthetic enjoyment of female beauty only neutralizes a genitally useless and even dangerous type of the libido which had become shifted from the genital zone. What on the surface seemed an 'inhibition' of the libidinous life turns out to be a beneficial agency which absorbs archaic urges threatening the differentiation of the genital voyeur libido.

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[1] *Ein Briefwechsel, Albert Einstein–Sigmund Freud, Warum Krieg?* (Internationales Institut für Geistige Zusammenarbeit, League of Nations, 1933), p. 51.

[2] 'The Origin of the Scientific and Heroic Urge, etc.', *Int. J. Psycho-anal.* (1949), XXX, 2.

The creative act generally makes restitution for an initial destruction of the self and the outer object in a basic interaction between Eros and Thanatos. We found the same basic interaction in the fleeting oscillations of everyday perception no less than in states of creative perception; we emphasized how little the difference in 'surface' time mattered in discerning in either of them the same creative rhythm alternating between undifferentiated and differentiated levels of the mind. Now we begin to discern the creative rhythm in a still slower motion spanning centuries alternating between advances of the disintegrating forces of Thanatos in certain historical periods and the restitutive process of culture as a whole responding to them. By extrapolating this great cultural process back into prehistory one arrives at my concept of a primeval crisis of the libido which was resolved by the emergence of human culture. This speculation would project the model of the creative rhythm into the still larger scale of a titanic battle between the forces of life and death.

I may claim for my assumption of a primeval crisis at the beginning of human culture that it brings out most clearly my dynamic concept of the cultural process and rounds off the various manifestations of the creative rhythm in their different time scale from the flickering of the single perception to a catastrophic advance of undifferentiated archaic modes of sexuality in a primeval era. I am aware that since Freud's book *Totem and Taboo*, speculative reconstructions of prehistory have fallen into some disrepute. The most antagonistic view is taken by Malinowski who demands that the (anthropological) study of culture must not even be concerned with the so recent 'prehistoric' past of primitive illiterate tribes. I can see no merit in such a self-emasculation of a science. What is intended in a reconstruction of a lost history is merely an extension (extrapolation) of present processes into an unknown past. Nobody would deny Physics (which is science's 'darling' and has no need to be quite so particular about its scientific method) the right of speculating about the cosmological origin of the Universe and we would justly feel deprived if such speculations were withheld from us. No direct proof is offered by any of the existing cosmologies. Yet they are not without further-reaching theoretical significance. As our knowledge of present physical facts expands, one or the other of the competing speculations might be found to be more consistent with the accumulating facts and more able to fit them into a comprehensive theory. No more is required of a reconstruction of an unknown past, neither in physical Cosmology nor in cultural prehistory.

Other than inorganic matter, life carries in itself the law of repeating the past. The embryo repeats the phylogenetical evolution of the species in building his body. The child builds his mind by going through strong emotional experiences which to Freud appeared stereotyped and to a certain extent independent of external influences bearing on the infantile mind. The orphan will experience his Oedipus conflict in relation to any parent 'substitutes' available to him and will thus be able to acquire the important cultural adaptations which depend on a successful resolution of the Oedipus conflict; only then will he fully develop his superego and his capacity for guilt feelings, and become ready for being 'civilized' through schooling. Freud explained the stereotyped experience of the Oedipus conflict and its resolution by the coming of 'civilization' from an ontogenetic repetition of a prehistoric Oedipus situation developing within a patriarchal horde which, too, was resolved by 'civilization', i.e. by the acceptance of the first 'law' forbidding incest. (Freud was not yet in a position to interpret in the same consistent manner earlier, perhaps similarly stereotyped, phases of infancy.) He further assumes —and this is of particular interest to us—that the Oedipus urges still underlie the evolution of religious (monotheistic) beliefs. We saw how at the beginning of the Christian era Oedipus guilt feelings became articulated into the Christian belief, as a millennium later the more primitive oral Prometheus guilt feelings begot the scientific beliefs of Western civilization. We shall return to this point later.

Martin Grothjahn[1] and Moloney and Rochelein[2] have tried to correlate earlier pre-oedipal phases of childhood with prehistoric experiences and certain cultural trends in general. These attempts help to refute the frequent reproach against the psycho-analysis of culture that it tried to explain any cultural phenomena exclusively from the same Oedipus conflict. Melanie Klein has uncovered very early infantile phantasies, the content of which bear little relation to reality and which may therefore be part of the child's biological heritage. The very young infant would suffer from guilt and anxiety feelings far more poignant than those which the older child is to experience in his genital Oedipus phase. Melanie Klein came to attribute these early sufferings to an initial advance of self-destructive Thanatos urges; they reach an absolute 'maximum of sadism' (and of self-destruction) in about the second year. They then gradually subside with the simultaneous development of the child's libidinous ties with reality which allow him to abandon his cruel half-unconscious phantasies.

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[1] 'The Primal Crime and the Unconscious', *Searchlights on Delinquency* (New York, University Press, 1948.)

[2] 'A New Interpretation of Hamlet', *Int. J. Psycho-anal.* (1949), XXX, 2.

Melanie Klein thus divides early infancy into two phases, one of ascending self-destructive urges up to a 'maximum of sadism' during the first anal stage, after which the self-destructive urges decrease. In my already quoted paper on the origin of the scientific and heroic urge I pointed to the fact that the recession of Thanatos urges and integration of libido coincided with the first 'cultural' adaptations of the child. It was therefore not impossible that the sublimations of culture played some part in reversing the trend of the growing Thanatos urges; in accordance to my conception of culture as the helpmate of Eros, the cultural activities would help to absorb the self-destructive Thanatos urges and so enable the child to integrate his libidinous life up to the genital level. The ontogenetic development of the child would show, on a large scale, the model of the creative process; a primary phase of self-destructive undifferentiated Thanatos urges which are overcome in the second phase of creative reintegration and redifferentiation. I also suggested that the child's early highly stereotyped phantasies (such as the phantasies of devoured body parts) could be explained as an inherited memory of prehistoric crimes in the same manner in which Freud explained the child's later phantasies on the level of Oedipus wishes as phylogenetical memories. (See, however, *Addendum* below).

I have come to see in the mysterious emergence of anal disgust the most fundamental and at the same time most primitive phenomenon of the cultural process (see Chapter IV—disgust and ugliness). It appears to me that in the child's ontogenetical development the untoward emergence of anal disgust at the height of 'maximal sadism' and self-destruction may have the same significance and ushers in the first cultural activity, namely the *social* adaptation of the child. The child not only learns cleanliness, but generally falls in with his mother's commands; he also acquires the rudiments of the most important instrument of social intercourse, i.e. language. I have not yet undertaken to show that the child's almost slave-like submission to his mother, whom he tends to follow round, might absorb particularly vehement self-destructive urges. These urges would be active in the lowest, least differentiated stratum of cultural processes and are very difficult to formulate owing to their lack of differentiation.

After this '*social*' stage of virulent Thanatos urges and of an almost undifferentiated libido the child gradually detaches himself from his exclusive social dependence on his mother and turns to other children, preferably to those of his own sex with whom he competes in exhibitionistic 'heroic' games and also displays an increased greed for knowledge. I have elsewhere ascribed this stimulation of the child's *heroic-scientific* activities to an (unconscious) reactivation of the self-destructive oral ('Prometheus') urges which the child first experienced in his 'early' oral phantasies about devoured body parts.[1] With the approach of the genital Oedipus stage the child would acquire his aesthetic appreciation of an abstract 'good' gestalt and so becomes, as it were, an '*artist*'. A perhaps somewhat later phase within the genital Oedipus stage is associated by Freud with the unconscious source of the child's *religious* attitudes; we could therefore distinguish, in our preliminary analysis of infantile 'cultural' activities, three—anal, 'late' oral, and genital—levels which roughly coincide with the successive stimulation of 'social', 'heroic-scientific', and 'artistic-religious' activities. The pre-oedipal stages would appear as stereotyped in their development as the final genital Oedipus stage; it will therefore be legitimate to inquire whether the pre-oedipal cultural stages could be interpreted as phylogenetical repetitions of prehistoric happenings in the same way in which Freud interpreted the stereotyped Oedipus stage. The anal, (late) oral and genital stratification of cultural levels and the corresponding hierarchy of social, heroic-scientific, and artistic-religious activities can be discerned in very different cultural materials and also—as I believe—in clinical case histories. So far I have shown in the analysis of the heroic-scientific material that many myths conceal under their superficial (genital) Oedipus symbolism a deeper oral symbolism of the Prometheus urge. I hope to show in a future publication that we may discern a still deeper third layer containing a highly ambiguous and undifferentiated symbolism which we may have to attribute to the most primitive cultural level.

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[1] Why these 'early' oral phantasies should have to wait for their cultural sublimation until a 'late' oral stage is a problem which can be tackled only in a more comprehensive analysis of cultural growth.

In a way, already this aesthetic investigation was drawn towards those deeper levels. It may have been our good fortune to have worked mainly on the highest (genital) level on which, as it is thought, artistic activity is chiefly carried on. But in discussing the 'laws' of *art*, we were forced on into the preliminary discussion of the '*scientific*' laws (on the oral level) which in turn could not be separated from the legal (*social*) laws of human society, thus cutting through, as so often happens automatically in depth-psychological investigations, from the highest level to the deepest stratum. (The same unconscious necessity may have guided the life-work of Nietzsche, that greatest precursor of cultural psychoanalysis, from the analysis of art to that of science and from hence to his crowning analysis of social morality and law.)

The advance of the Thanatos urges in recent Western civilization falls into roughly three stages which would belong to ever-deeper levels of the unconscious mind, such as those we have just described.

In my paper 'Unconscious Form-Creation in Art' I tried to show that three successive waves of irrational anxieties and guilt feelings attacked Western civilization in the course of the last two millennia, each calling up its specific cultural reaction. The *first* wave rose at the beginning of the Christian era. It was described independently by Gilbert Murray and by Sigmund Freud. The Greek spirit, with its high rationality and full libidinous life, broke without sufficient external cause. Murray speaks of a 'Failure of Nerve'.[1] He finds the new feeling of irrational anxiety and inarticulate guilt spread throughout the peoples of the Mediterranean basin. 'It is just as marked in the Gnostics and Mithras-worshippers as in the Gospels and the Apocalypse, in Julian and Plotinus as in Gregory and Jerome. It is hard to describe. It is a rise of asceticism, of mysticism, in a sense, of pessimism; a loss of self-confidence, of hope in this life and of faith in normal human effort . . .' (p. 123). Murray also finds a need to be granted pardon for 'one's unspeakable unworthiness' and 'immeasurable sins'. The irrational character of these feelings is evident. It only needed Freud to diagnose them as coming from an inarticulate phylogenetical Oedipus memory.

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[1] *The Five Stages of Greek Religion, loc. cit.*

They reveal their origin by their ultimate resolution through the Christian message of salvation telling us that the divine son's self-sacrifice has made atonement for the primeval sin committed against the divine father. (This subjective derivation of Christianity from an irrational source does in no way detract from religion's possible objective value.[1])

I said in the last chapter that our religious beliefs articulated genital Oedipus guilt feelings, just as later scientific beliefs were to articulate (oral) Prometheus guilt feelings which surged up in the *second* wave of guilt feelings enveloping Western civilization. We now see the full implication of this progress; in depth-psychological fact it represents a retrogression to more primitive and self-destructive urges welling up from ever-deeper ('pre-oedipal') levels.

Today the *third* and most terrible wave of anxiety and guilt feelings has engulfed us carrying with it outbreaks of violence and self-destruction unparalleled in written history. In my quoted paper I pointed only to the poignantly 'social' character of today's irrational feelings without localizing them in a definite mental level. Significantly, we suffer from inarticulate feelings of *social* guilt and *social* uneasiness, and from *social* fears leading to accusations and persecutions which have not unjustly been compared to the medieval persecutions of heretics and witches. Do they stem from the lowest least differentiated level of the unconscious mind, corresponding to the first, 'social' stage of the child's pre-cultural development?

As we are not yet able, in this context, to diagnose the *content* of the self-destructive urges possibly underlying social creativeness, we are confined to the analysis of cultural *structure*. Several considerations speak for the utter lack of structural differentiation in our cultural attitudes concerning art, religion, and social structure. They represent tendencies towards extreme 'abstractions' owing to our weakened object-libidinous relationships. We have already discussed Prof. Gombrich's sensitive analysis of 'abstraction' in art. The modern artist's 'power of abstraction' may seem a highly sophisticated achievement; but at the same time it represents a retrogression to the least differentiated modes of infantile thing perception where a stick is equated with a horse and a lamp-post with an erect human figure. Giacometti's 'stick'-sculptures acquire a mysterious life more vivid than realistic renderings of the human figure. Thus highest sophistication is combined with the most primitive, least differentiated functions in our mind.

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[1] See for earlier 'debunking' tendencies in psycho-analytical writings and modern science later on.

The same 'abstraction' occurs in our modern impersonal concepts of divinity and of social institutions. Here I can draw on the excellent work done by Max Weber and Erich Fromm.[1] Weber was able to correlate the self-destructive, ascetic nature of Puritanism with its changed concept of divinity. While the New Testament gave us a personal 'Father in Heaven', the Protestant divinity became 'a transcendental being, beyond the reach of human understanding' (p. 103). The fully differentiated patriarchal Godhead on the Oedipus level has retrogressed to the undifferentiated 'abstract' parent figure on the lowest cultural level. We must admire Weber's depth-psychological sagacity which recognized the deeply irrational nature of the modern, seemingly so rational capitalistic structure. The impersonal aloofness of divine authority also leaves us with a 'feeling of unprecedented inner loneliness' (p. 104) within our social environment.

Prof. Fromm investigated the parallel transition in our political government from a personal ruler to the impersonal ('abstract') government in modern democracy. On the surface this transition again appears as a highly rational achievement. We are assumed to have arrived at a 'fatherless' society; modern rational man claims to have lost the infantile need for protection by a father figure impersonated by the ruling monarch. Government on earth has changed to impersonal rule just as the divine government in heaven. Prof. Fromm, being a psychologist, deals with the feeling of social isolation which Weber had already explained from the loss of a personal, father-like ruler. Fromm fully recognizes the retrogressive character of this change. Our feeling of social loneliness as well as the impersonal cruelty of our political institutions is connected with the emergence of the (abstract) undifferentiated parent figure belonging to that earliest stage of the infantile development in which the child cannot yet clearly differentiate between his own ego and external authority nor between the parent figures themselves. The strength of the aggressive and self-destructive phantasies at that stage (which is still near to the 'maximum of sadism') accounts for the severity of the parental authority. Fromm rightly assumes that the child's submission to a parental ruler whose personality still mingles with the child's own frightening phantasies has an altogether 'different quality from the kind of submission that exists once two individuals have become really separate'.[1] Fromm sees modern man's deliverance from his sufferings to lie in the proper integration of his object relationships, 'the foremost expression of which are love and productive work'.[2] He thus connects—as I do—cultural creativeness with a fuller libidinous life. We may only hope that the cycle of advancing and receding forces of Eros and Thanatos may turn once again and allow us—through the graces of culture—to reintegrate our impoverished libidinous life.

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[1] Weber, M., *The Protestant Ethic and the Spirit of Capitalism* (New York, Charles Scribner, 1950); Fromm, Erich, *The Fear of Freedom* (London, Kegan Paul, 1942).

Our tentative diagnosis of a friendlier atmosphere in modern abstract art (see p. 176) pointed to such a possible favourable turn in the cultural cycle. After centuries of recession from outer reality our art appeared to us to turn back towards it, possibly towards a truly 'libidinous' realism such as we found it in the (naïve) art of ancient Egypt. We may also observe the relenting of anti-libidinous trends in other fields. The first half of this century not only destroyed the traditional values of beauty in art, but cultural 'values' in general. Accepted values were analysed and often found wanting. Psycho-analysis played a leading rôle in this game of cultural self-destruction. Once psycho-analysis brought to light the many irrational and infantile tendencies behind our cultural values, those values were at once deemed remnants of infantile attitudes unworthy of a truly rational 'adult'. Thus, as we have just seen, beliefs in a personal God and political monarchy were condemned as infantile. But are not all cultural values in the last resort 'irrational' and 'infantile'? It is no longer necessary to criticize the 'Brave New World' of the last decades when Logical Positivism disestablished metaphysical values, and analytical Jurisprudence discarded as unscientific the concepts of Justice and Natural Law. Today the self-destructive game of 'debunking' has become somewhat old-fashioned and appears to be not quite so brave as it first looked; we are busy reintegrating our cultural values.

Can we generally describe cultural evolution in terms of advancing and receding Thanatos urges or of disintegrated and reintegrated libidinous values? In other words, can we use the same model which we found so useful to describe the creative activity of the individual mind also for describing the mass-psychological process which stimulates specific cultural activities at certain historical junctures? I feel that the attempt is justified, at least for the reason that it brings into prominence the action of irrational internal urges acting from within which are often neglected in the study of culture today. The concept of recurring depth-psychological cycles in cultural evolution has to be approached with caution. The time span of such a cycle is usually so great that its beginning takes us back into prehistory. So far we have studied only the descending phase of the cultural cycle in Western civilization leading down from the 'Failure of Nerve' in classical rationality. The preceding building-up of the classical spirit from prehistoric times onwards can only be surmised.[1] Cyclical interpretations of history and prehistory have rightly become suspect. Prof. H. Frankfort's criticism of Prof. Arnold Toynbee's cyclical interpretation of pre-classical history is both hard-hitting and convincing.[2] Frankfort himself is inclined to consider the course of cultural history too statically. He pays tribute to Ruth Benedict's gestalt psychological description of culture patterns and somehow expects that a particular culture springs to life within a definite pattern of its own which may then remain largely unchanged in its later history.[3]

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[1] *Loc. cit.*, p. 21.

[2] *Ibid.*, p. 24.

The introduction of gestalt concepts into the analysis of cultural history gives a good foundation for further argument. The gestalt concept already helped us in our critical appraisal of art history. I have tried to show in this book that the analysis of gestalt patterns and style influences in art only dealt with the conscious surface of art form and neglected the depth-psychological undercurrents which intermittently break through the surface and enrich the artistic form language. Similarly the description of cultural growth (of which art history forms only a part) in terms of static gestalt patterns only concerns itself with the surface phenomena of culture. Cultural history cannot be wholly written in terms of old patterns which intermingle and create new patterns by 'diffusion' of cultural traits. We have to consider also the intermittent intrusions from below of undifferentiated trends which by bearing on the complexity of patterns above throw them into ever-new forms; we cannot predetermine their surface effects in advance, any more than we can predict the future course of art history. Hence even if a depth-psychological cycle of culture were proved it could not possibly help us to predict the course of a particular cultural development. Thus the welling-up of Oedipus guilt feelings at the beginning of the Christian era produced a bewildering multitude of new creeds, mysteries, and philosophies among the equally varied patterns of the Hellenistic culture sphere which by their mutual diffusion and antagonism produced still more diversity. When I described the upsurge of the oral Prometheus guilt feelings a millennium later I could not thereby alone account for the enormous difference in the reactions among various environments. The European North would allow the full irrationality and cruelty of these urges to express themselves in persecution and obscurantism. On Mediterranean soil where some measure of the classical spirit still prevailed the gracious culture of the Provence enjoyed its pre-scientific heresies with gusto; the Italian Renaissance could still deal effectively with Savanarola's zeal and intolerance, and by its already scientific spirit quickly neutralized any pre-scientific fears and anxieties.

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[1] In my paper on the origin of the scientific urge I have drawn attention to the definite scientific-heroic character of the Homeric Bronze Age which bore psychological comparison with the scientific-heroic atmosphere in the Middle Ages. Can we consider the Bronze Age as the corresponding ascending phase in the cultural cycle? Can we, furthermore, discover in the preceding neolithic settlements of the Mediterranean basin still more primitive depth-psychological trends similar to 'modern' irrationality? It has been frequently observed that the 'geometrical' style of neolithic pottery is the nearest counterpart in the history of Western art to modern 'abstract' art. Have we not come to trust the evidence of artistic structure as the most trustworthy symptom of depth-psychological cultural attitudes and trends?

[2] *The Birth of Civilization in the Near East* (Williams and Norgate, 1951).

[3] Benedict, R., *Patterns of Culture* (London, Routledge, 1935).

What we are pleased to call Western civilization dissolves into a multitude of very flexible, fusing, and disengaging units, each equipped with a pattern and cultural rhythm of its own and each flowering at different periods (Italian Renaissance, English Tudor, French Baroque, and perhaps also the inter-war period of the German Weimar Republic). But above these smaller eddies in the stream of cultural growth we may discern more extended cyclical movements, far less differentiated but also less influenced by external surface factors. Prof. Toynbee's rationalizing attempt at explaining culture change as response to *external* challenges may well stand; but it has to be underpinned by considering also the response to *internal* 'challenges' issuing from the restless archaic urges slumbering within us. The history of art and also that of religion, which are less dependent on external factors, can be expected to show the pressure of hidden irrational tendencies most clearly; hence the possibly far-reaching significance which a depth-psychological analysis of art form may acquire for the writing of cultural history at large. Our aesthetic argument had to leave many connecting threads hanging loose; to gather them up into a comprehensive study of the cultural process must remain the object of a future investigation which may well reflect new light on the depth-psychological study of artistic structure attempted in this book. The cultural process is by its very nature indivisible.

Addendum

FREUD'S reconstruction of prehistory rests on the assumption that today's unconscious phantasies represent memories of actual (conscious) behaviour in primeval times, e.g. the present individual- and mass-psychological Oedipus phantasies were once 'acted out' in overt crimes of patricide and incest. I followed Freud's example in my hypothesis of a primeval crisis in which now unconscious modes of perception would have dominated surface perception (pp. 81 *n.*, 220, 260). Yet it may be doubted whether what today is unconscious must have been conscious at some earlier time and only later underwent repression. It was surmised at first that the adult's unconscious mind perpetuated the child's conscious experiences (pp. 31, 67). Recent investigations, however, suggest that the child, like the adult, possesses a rich phantasy life part of which need not have ever become conscious at any time (see Susan Isaacs, 'The Nature and Function of Phantasy', in Melanie Klein and others, *Developments in Psycho-analysis* (London, 1953)). The difference between infantile and adult phantasy life may only be quantitative in so far as in infancy the unconscious phantasies would lie nearer to the surface and influence overt behaviour more strongly. This alternative interpretation might have to be applied to the mass-psychological phantasies underlying cultural growth and to the reconstruction of cultural prehistory. Less dramatically, the primeval era of crimes and undifferentiated libido might have merely strengthened unconscious aggressive and self-destructive phantasies; their influence on overt behaviour could have caused a serious enough crisis of the libidinous life to be spoken of as a 'crisis' of sexuality. My speculations about the interaction between Eros and Thanatos as the root of all cultural growth remain unaffected by either reading.

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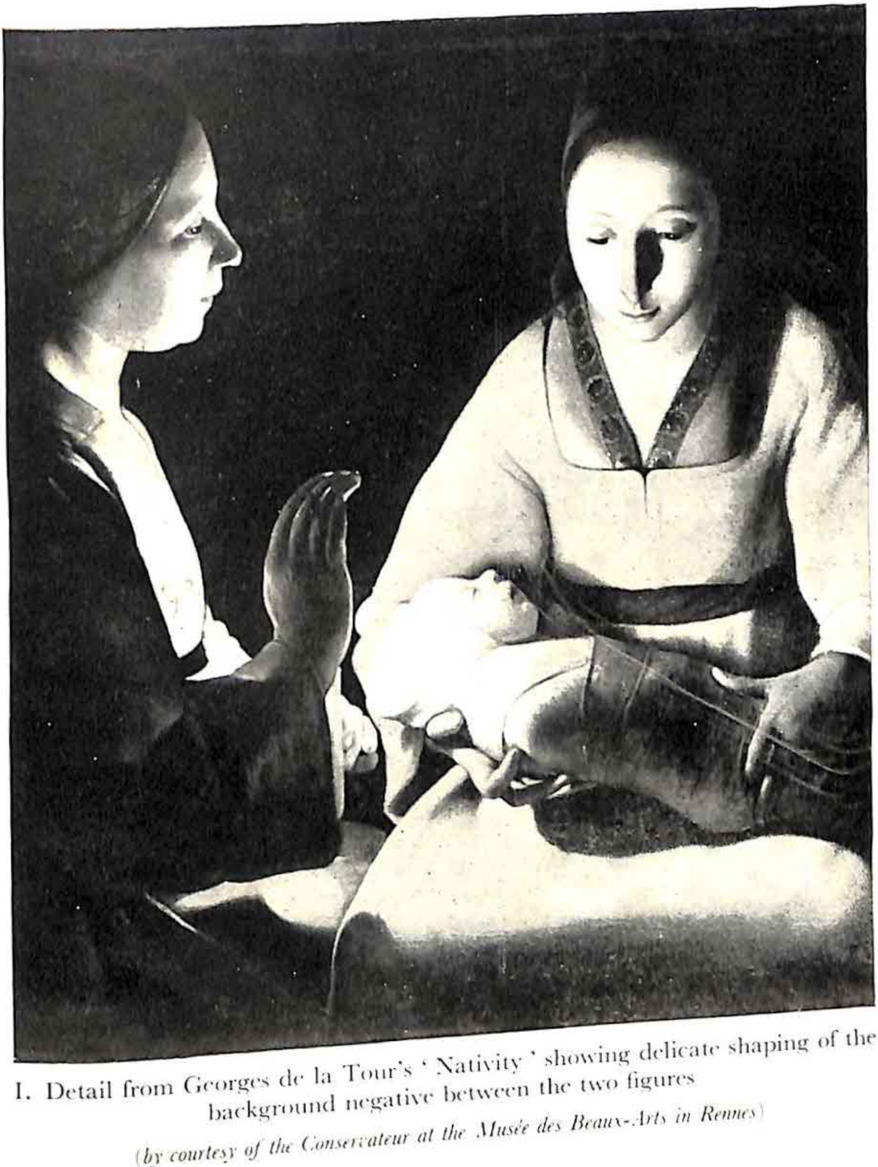

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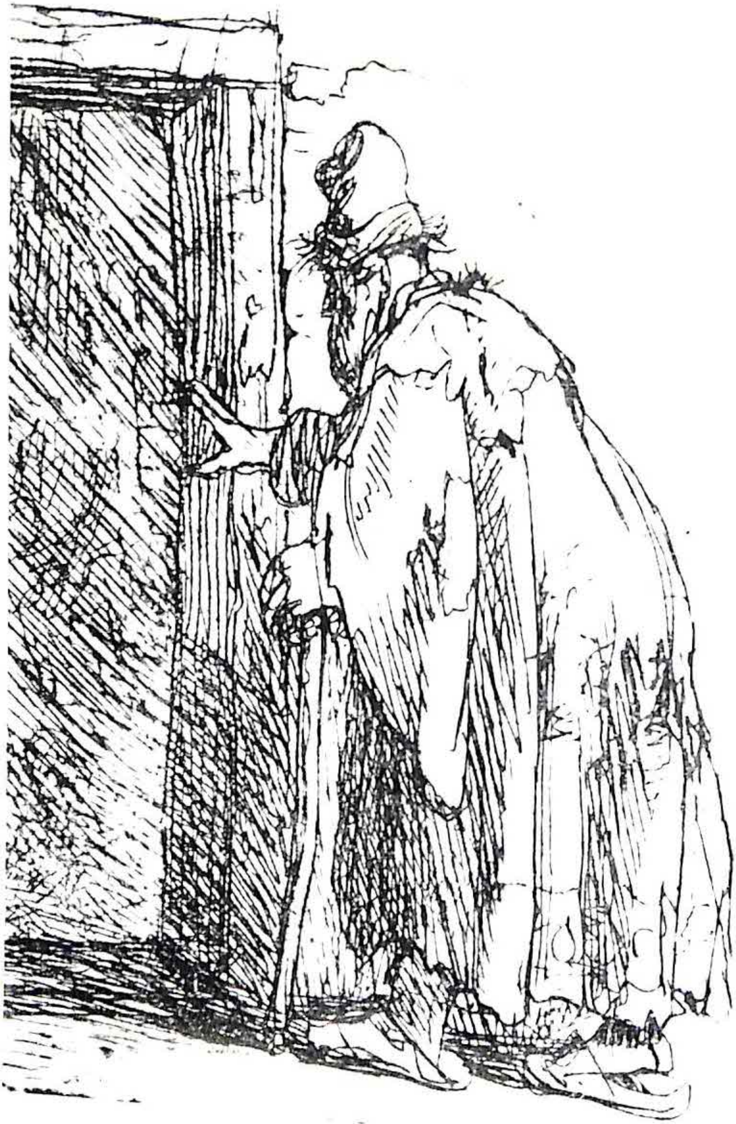

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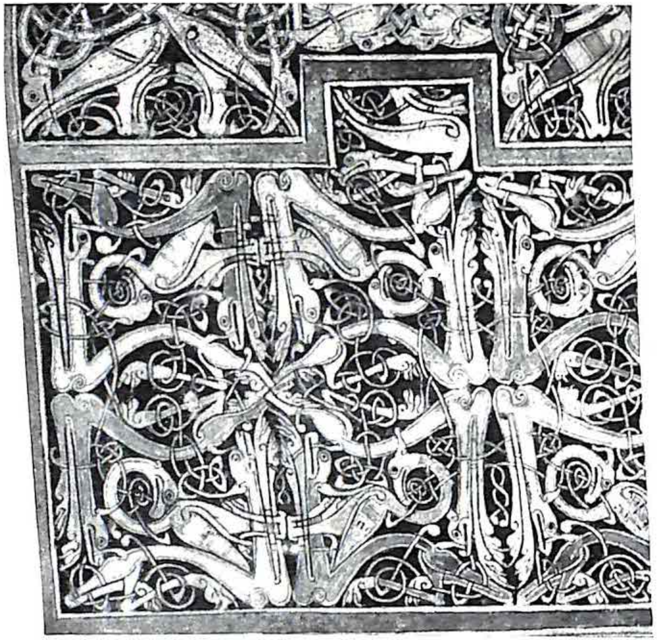

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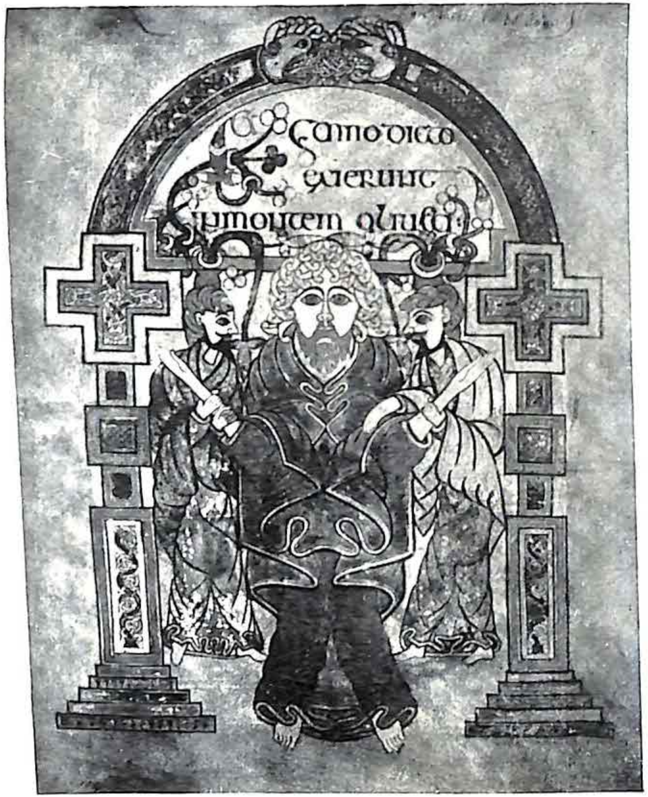

IV. The 'stylized' figure of Christ, from the Book of Kells

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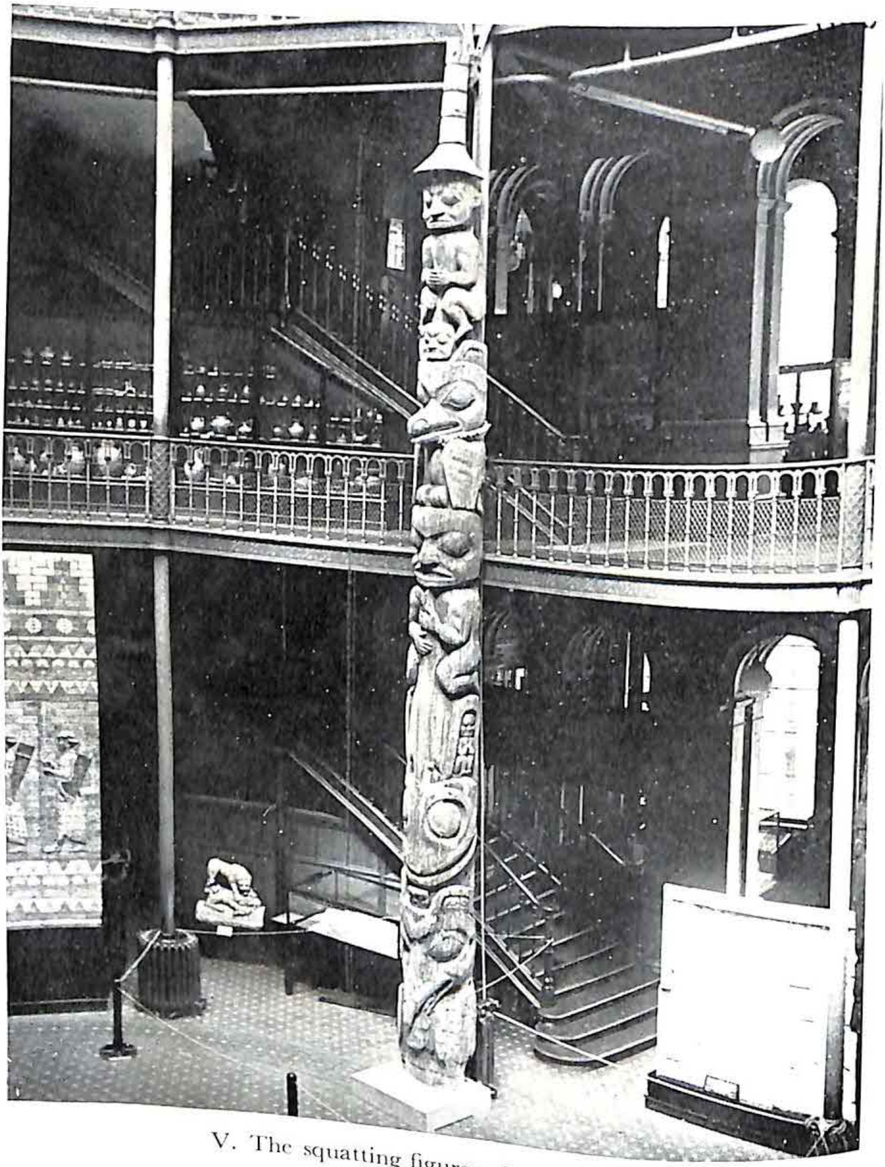

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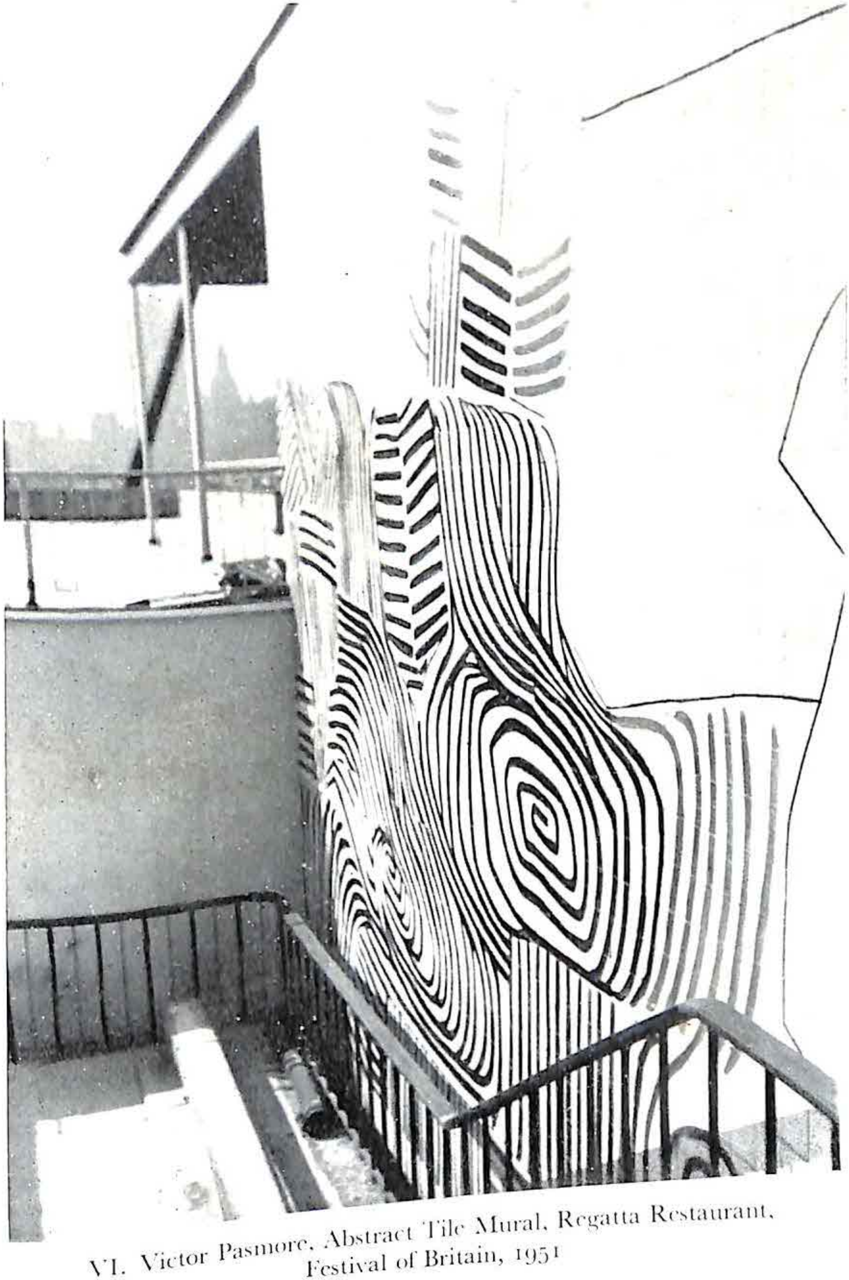
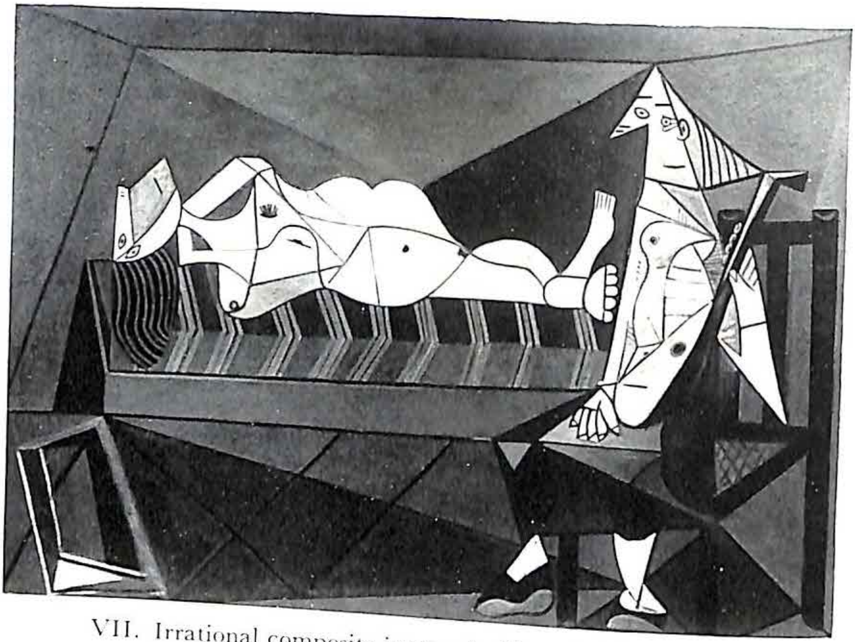


VI. Victor Pasmore, Abstract Tile Mural, Regatta Restaurant, Festival of Britain, 1951



VII. Irrational composite images in Picasso's 'L'Aubade'
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VIII. Still Life by Cézanne
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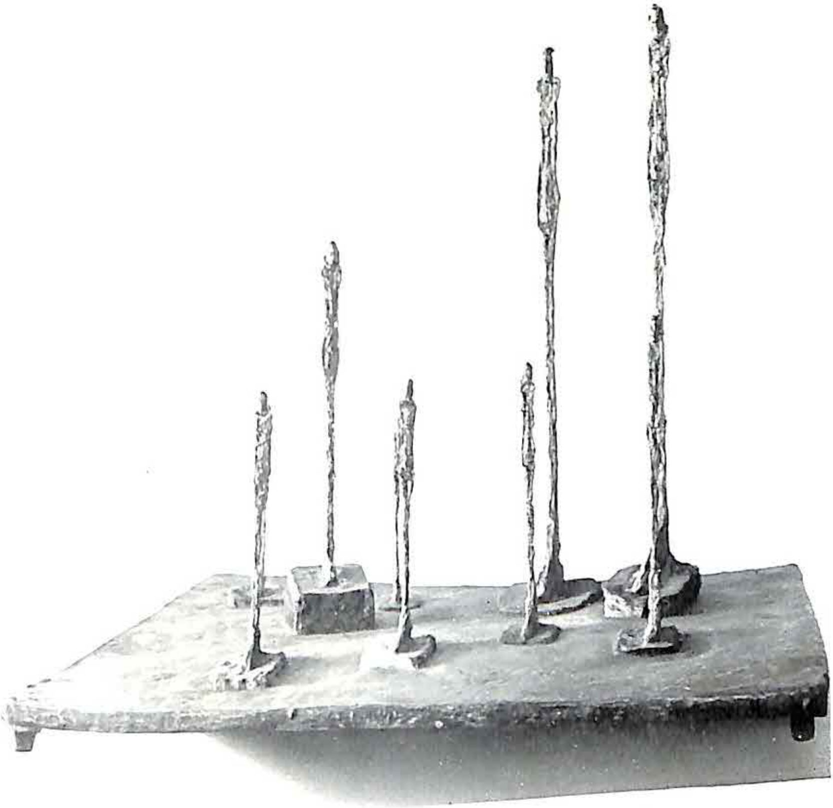

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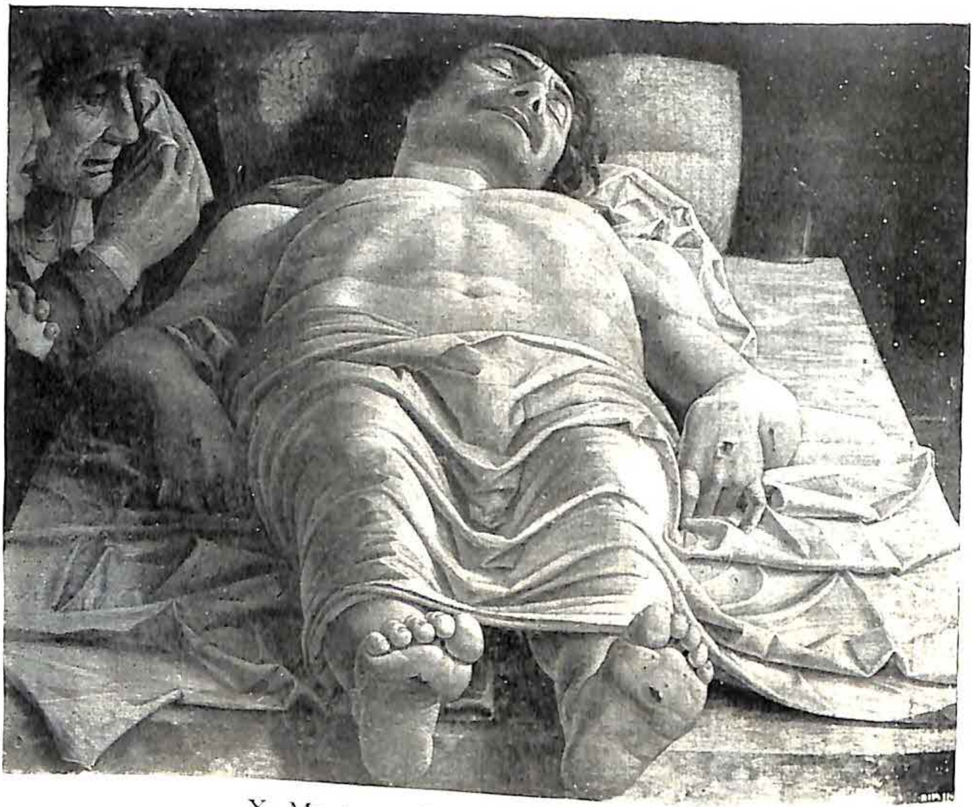

X. Mantegna, *Dead Christ*, Brera, Milano

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THE AUTHOR

After taking a degree in law (University of Vienna) the author became a magistrate in Austria in 1937. Coming to England in 1938 he continued his studies in certain border subjects between science, technology and art. While working in industry he published papers on applied psycho-analysis in the British Journal of Medical Psychology and the International Journal of Psycho-analysis.

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Despite the seemingly specialized nature of its theme, *Abstraction and Empathy* has, in Germany, run into no less than eleven editions from its first appearance in 1908 to the new impression of 1951. It has contributed more than perhaps any other book to a re-appraisal of the art that lies outside the Classical, naturalistic tradition, and opened the way for the abstract trends so characteristic of all contemporary art, even that which is not avowedly abstract.

ROUTLEDGE AND KEGAN PAUL